mental health digest

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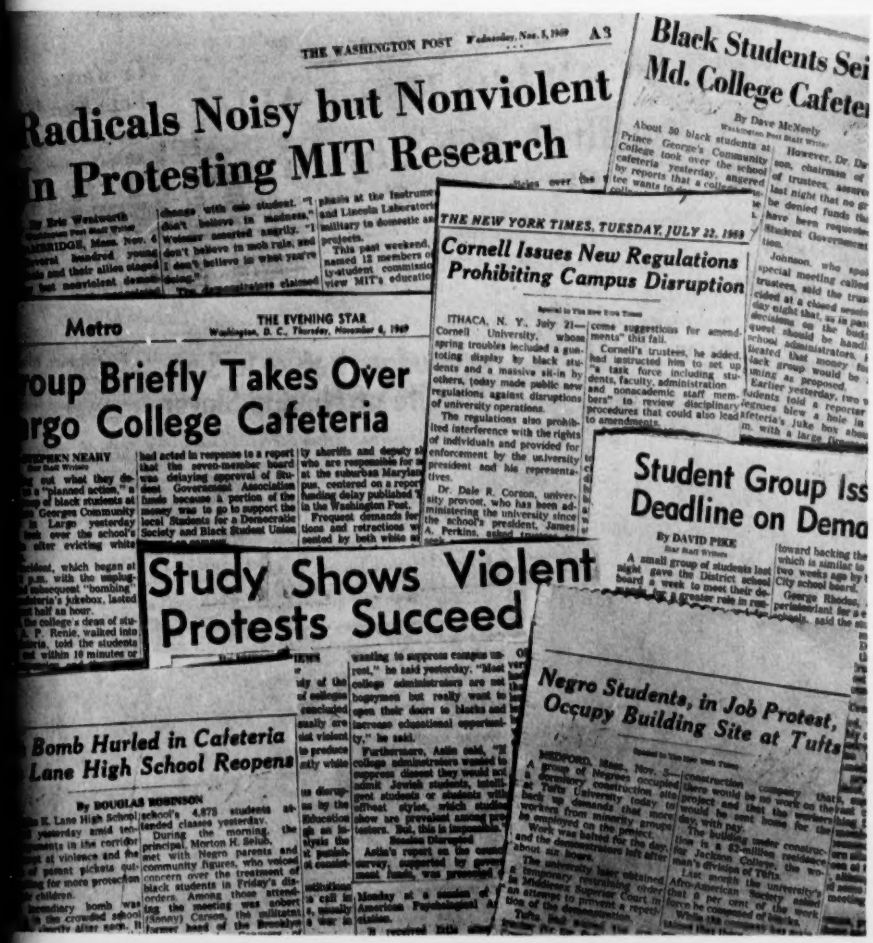
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cover story

Young Rebels

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"Young Rebels in a Mental Hospital"—the first digest in this issu describes this crisis and the reaction of the hospital staff.

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Young Rebels in a Mental Hospital

PETER HARTOCOLLIS

From Berkeley to Columbia and from Paris to Tokyo, youth is expressing its opposition to the values and system of the Establishment with powerful action and demands for radical and immediate change. A private psychiatric hospital recently experienced a crisis that mirrors events taking place on campuses and in society at large.

On June 15, the director received a petition:

> We, the undersigned, are concerned with the lack of meaningful communication in the hospital community and believing that we have a valid right to make constructive suggestions to the betterment of the community propose to have three representatives from our ward, and three from Ward 1, chosen by those concerned to meet together to organize in order to present a clear, accurate picture of the situation and ideas for improvement to the doctors at the conference.
>
> Attitudes and methods now employed have caused unrest. We feel that the situation can no longer be repressed or ignored and that the proposed conference is the most constructive as well as effective way of handling the situation.

There followed the signatures of 30 patients on Ward 2. There were 65 patients on the Ward. The six leaders, whose signatures were on the petition, were under 20. They had been attending college and had been admitted within the previous three months. All had a history of behavioral problems and confusional episodes, usually associated with drug experimentation.

Roger and Larry came to the hospital about the same time and found themselves attracted to one another. Roger had developed a following of young patients to whom he conveyed his mystical, almost hypomanic, ideas of brotherly love and social protest. He had attempted to run away once, and had tried again just before these events. Shortly afterwards, Larry suggested a walkout, in which patients who disagreed with the rules would go to the Clinical Director with a demand for changes. He mentioned the idea to his doctor, who suggested that the action was motivated by his wish to circumvent personal conflicts. Larry was not impressed with his doctor's logic until he realized that other patients were taking seriously his suggestion whereupon he felt that this was "a silly stupid way of doing things." He attributed his actions to the fact that he had never been able to fight for what he thought were his rights at home, always giving in to his parents.

The idea of a walkout remained in the air and worried the hospital staff. Some nurses expressed anxiety, suggesting that the doctors take the patients' unrest seriously. Other staff, especially doctors, tended to view the situation as innocuous, if not healthy. The rumored date of the walkout came and went without incident, and the optimists among the staff felt justified. But most nurses and aides continued to worry. Predicting that something ominous was yet to happen, they complained that the doctors were "too analytical," paying too much attention to private thoughts and feelings,

Condensed with permission from the *Bulletin of the Menninger Clinic*, 33(4):-215-233, 1969.

while overlooking participation in group action that caused trouble. They pointed out that the patients were argumentative and disrespectful of rules, refusing to go to their rooms at bedtime and playing tricks on staff, such as loosing a mouse and a frog in the living room.

On June 14, Roger walked out of a patient dance, leaving a message with another patient that he expected his doctor to look for him at a place on the grounds to discuss the demands for reform. He warned that if anyone tried to reach him, he would resist physically. When an aide found him he returned to meet his doctor, and they discussed the complaints. The next day Roger went to his treatment activities as usual. This was also the day the patients' petition was drafted. Roger's name appeared eleventh on the list.

First on the list was Helen who had denied need for treatment, accepting hospitalization conditionally, with constant arguments, and had tried to run away. She had let another patient have a supply of hashish, which she had received from a visiting relative. Her attitude and the incident with the hashish created negative feelings in the nursing personnel. The nurses also described the doctor's treatment approach as too liberal.

On June 16, Roger began to argue with the chief nurse over the fact that the ward had been locked following Helen's attempt to run away. Another patient took the side of the nurse and when Roger laughed and called him "ignorant" the patient attacked him. An aide intervened, a gesture that alarmed Larry who threw himself on the aide. In the struggle, the aide dislocated his shoulder, and even though the injury was not caused directly by anyone, some personnel blamed Larry.

Following these events, and as the doctors continued to deal with their patients, the Section Chief met with the nurses, group workers, and patients on Ward 2 as a group, in both preestablished and spontaneous meetings. The purpose was vague: to understand and to be understood, to share feelings and ideas with all those involved. Treatment remained the goal.

After some reluctance, the younger patients began expressing their views in terms of complaints of the rules as interpreted and enforced by the staff. They accused nurses and aides—as well as doctors—of being arbitrary or unable to provide explanations for policies that made no sense. They felt that they were expected to become "plastic" people, which was what they contemptuously called the staff.

When the staff pointed out that to expect instant dialogues whenever they raised a question was unrealistic and that to try to change things on the spot caused only disorder and negative feelings, the patients countered that the best time to exercise their rights was whenever they felt they were right. At the same time, they disapproved of violence and blamed the unrest on the staff and patients who sided with the administration.

Nursing personnel complained that the patients were arrogant, provocative, antagonistic, even assaultive. As the doctors did not seem to be impressed with the need to enforce the rules, concentrating instead on the reasons and feelings that made the patients protest, the nurses experienced a sense of impotence. Believing that

they did not have the doctors' support, they became discouraged.

Some patients accused the staff of inciting fear by using police methods. "The fight, or whatever it was Sunday night, was an action of fear, of hostility as a result of fear," they said. They described their action as protest and disclaimed any aggressive intentions.

Some patients turned against the dissenters, aligning themselves with the personnel. They argued that they were there for treatment, and were willing to have their rights curtailed if their doctors so advised.

As patients who objected to the dissenters were more numerous and were ready to turn down the request of the dissenters for a dialogue with personnel, the Section Chief along with the group workers and nursing leaders met with the dissenters separately. Participation was voluntary, but required consent of the individual doctors. Because of the impression that the dissension was motivated by individual pathology, a few doctors did not allow their patients to join this group. Consequently, some of the more outspoken patients did not show up.

Shortly after, Roger and four other rebel patients were discharged against medical advice and their parents' wishes. Mary's and Helen's parents tried to commit them. In Mary's case they had a trial by jury, to no avail.

On September 3, Larry wrote a letter to Roger:

Roger, my Friend,

Very strange day, perhaps the beginning of a new circle, for all the first period people are gone or leaving. Mary won her case today, and left the hospital looking beautiful and happy and transcendent and taking part of me with her. Of course, she left much of herself with me. Fantastic person. Bill is leaving tomorrow. The last month has been a gigantic hassel for him (room restriction, etc.), so he gave up. I have strangely mixed emotions about his leaving; I'm glad he will be free, and yet I'm not sure he can be. Helen, my eternal hassel, may be leaving very soon; if not, she has a trial in the near future. Her parents (apparently this is a new development) are willing to take her back under certain conditions (live at home, eat with the family, no drugs, etc.). I don't think she and I have agreed on anything since I've known her (fixed water—cardinal fire), so my opinion of her chances of success are biased, but the whole thing seems unrealistic as hell. Unfortunately.

Donny is leaving on Saturday. Good? Bad? I don't know. But he's going and I will be one less. Mary's gone and you're gone, Carol's gone, Sam is gone and soon, as I have said, Bill, Helen, and Don are going. I'm staying, the Big "H" works for me, I'll get all I can. It's cool. What I mean to say, I am getting better, which is a groove. Staff is still arbitrary, of course, but I can handle it, and glory of glories, that petition worked (I guess you already know) and the meetings are moving fairly well. Nothing concrete, but they are listening. Our Section Chief is still wordy but he's okay and seems to be willing at least to consider what we have to say.

Aside from the process of establishing my identity, the most exciting thing that has happened was having my wisdom teeth extracted—gruesome. Hammers and chisels and pliers and eight shots of novocaine. Blah! I'm beginning to sound illiterate, so I'll hang up.

Peace and Good Times,
Larry

During the crisis, doctors and nurses tried to understand the causes of the unrest and attempted to correct the situation. The doctors and nursing personnel felt most unhappy as did the patients who sided with the hospital staff. The dissenters seemed to wish for the excitement to continue. They had found a cause, something that gave cohesiveness and impetus to their group, enhancing their sense of identity and pushing into the back-

ground the anxieties that had brought them to treatment.

Some disturbing factors—Latent tension among staff preceded this crisis, and the patients helped bring it to the fore. The fact that important, but by no means well-understood, changes in the administration of the hospital had taken place underscores the point.

As in some universities affected by student rebellions, the organization had been authoritarian and paternalistic not only in relation to patients, but also with staff. Staff on the lower levels of the professional hierarchy, having been subjected to this structure for a long time, reacted to the patients' demands with anger, impatience, and discouragement.

Another factor is that the rebellion took place at the beginning of vacation time. Some doctors had left, notably doctors of patients who played a role in the rebellion. Substitute doctors did their best to carry on with treatment. The point is not that any doctor's or nurse's absence was crucial, but that doctors and nurses could go away to join families and have fun. The patients, left behind with their problems and the work of treatment, felt frustrated, angry, and lonely.

The changes in the doctor-patient relationships that vacation time brought about tended to weaken the nursing staff's grasp of the patients' treatment and to make their own role uncertain. Their morale suffered; they became less available and more irritable, relying more on rules and restrictions—all of which the patients referred to, rather accurately, in their complaints.

Another factor was a recent influx of youthful patients. In the past, new patients were admitted after a group had become acculturated to the hospital milieu. With such a graduated admission procedure, a patient who protested that he was not sick would be challenged by the other patients with the comment that that was what everyone said at the beginning. But because of a relaxation in the admission policies and the fact that applications to admit young rebellious patients increased, a high proportion of such patients were allowed to gravitate to Ward 2 during two or three months.

A crisis of values—The question is whether any of these factors, even all together, could account for the crisis. They probably contributed to it, but they seem to depend on some more fundamental force. Such a force may be inherent in the crisis of values in our society, a crisis reflected in our approach toward mental illness and goals of treatment. We tend to diagnose as illness failure to comply with the rules of the game that we call adult morality, or failure to assume the role of an "organization man." And even when illness is diagnosed as bizarre symptomatology, the success of treatment is judged on the basis of the patient's adjustment to the values and goals of society.

When a patient's illness is manifested as social maladjustment and protest against the ecological structure, one could expect him to protest against his physician and the hospital or to remain apart, hostile or indifferent to them. The assumption that the patient's protest and social maladjustment are the result of his neurotic difficulties rather than any ills in the society is going to sound naive or hypocritical to him.

What disturbed the balance in this crisis was the fact that the roles of

critics and criticized were reversed. Even though staff criticized the patients, it was the patients who first criticized the staff with the accusation that their understanding and behavior were nonconstructive, arbitrary, and hypocritical. What the dissenting patients claimed to want was change, but not in themselves. They wanted to change the environment, the rules of the place and the attitudes of those in authority. The wish for change seemed also to serve the purpose of avoiding the anxiety that accompanies the awareness of one's own inadequacy and the need to change one's own ways and ideas. The doctors had tried to promote this awareness in their patients, requiring the hard work of self-analysis, self-discipline, and selflessness or self-sacrifice.

The staff, and patients who identified with staff, seemed to resent the idea of change. They resisted it, offended by the implication that something was wrong with treatment and with themselves who had accepted treatment.

It is also probable that the dissenters were able to express more than their own concerns and wishes. Patients as well as staff might have been motivated by similar concerns which they had managed to suppress or handle inadequately. Threatened by their own wishes, they sought to suppress the dissenters, extolling the virtues of treatment and the Establishment. Such a mechanism could be seen as "identification with the aggressor."

Individual dynamics and group action—There was a tendency among staff to dismiss social issues by focusing on individual dynamics. The emphasis on individual dynamics seemed to relieve the staff's anxiety about their role in the unrest, especially when the burden to deal with such dynamics was supposedly on someone else's shoulders.

Most doctors were convinced that the rebellious patients engaged in "acting out" behavior to be dealt with by interpretation. Reality as seen by the patients was a pseudo-reality, an attempt to escape from the individual reality that made these patients sick and unable to face the collective reality in a healthy way.

This view, valid as it may have been for the actions and words of individual patients, failed to consider the fact that it referred to group action rather than individual members privately. Unless the group action were to be interpreted as mass hysteria responding to some collective illusion, it would be unjustifiable to ignore the issues it raised. Transference and countertransference phenomena were obviously at work all the time.

Most unsettling to the staff was the youngsters' seeming immorality. Their contempt and provocative rejection of adult rules and values were perceived as disrespect for and rejection of themselves and their values. The youngsters' libertine attitude toward sex and hedonistic practices threatened the adults with eruption of their own impulses and concomitant emergence of superego-induced fear, with the result that their superegos turned against the external threat that the youngsters and their behavior came to represent. The youngsters' bizarre symbols, vulgar and noisy language, colorful, scanty, or dirty clothes, served as reminders of sacred and dangerous social taboos.

Disturbing on another level was the patients' seeming dishonesty. What puzzled and angered the staff was not

so much that patients deceived them, but that they could do it in a seemingly guiltless manner. When they deceived, it was because they had no concern, no respect for the adult moral code that prohibits lying (unless it is done for some ulterior, expedient purpose!).

The wish to suppress and control—It would have been easy to resolve this crisis without touching on the problems that brought it about. Things might have calmed down if one or two rebel leaders were removed from the group, as some staff recommended.

The wish to find solutions to problems for the sake of solving a crisis was widespread among the staff. Such a wish was associated with an authoritarian, suppressive attitude. The ability to listen and to participate in the process of events to promote better understanding and improve living conditions and treatment was often interpreted as capitulation to the patients' demands or as antitherapeutic permissiveness.

When a similar crisis occurred in the same hospital about 10 years earlier, it was handled with the removal of the leaders and breaking up of "the gang." This crisis was described as an "outbreak of delinquency" rather than as a protest movement, and the patients were referred to as "delinquents" rather than as "rebels." A point was made to "reestablish" firmness and to have the physicians insist on conformity to adult rules by the adolescent patients when with adults. In addition, the Section Chief mixed freely with the patient group, pointing out to the young patients their responsibility for the situation, and trying to bring the adolescent and adult patients together to work more harmoniously.

Ten years later we chose to disregard the notion of crisis and the urge to find solutions to problems. Instead, engagement became the goal. To become involved, as our patients seemed to want, yet not to lose ourselves in the involvement, as the patients and some of our staff members seemed to do, proved to be the most beneficial way of working with patients. Such involvement, no longer for the purpose of controlling the situation, enabled us to experience the existing problems, the frustrated needs and unspoken anxieties that created the problems which led our patients to rebellion and our staff to defensive, control-minded reaction. Thus, problems were no longer incidental complications or messages of things to treat, but became themselves vehicles of treatment—essential for treatment.

The Role of the Behavioural Sciences in Medicine

Introduction by F. M. Burnet

About 10 years ago, in my opinion, medical science came to the end of the period in which great discoveries could be made by the straightforward use of science at the bedside and on the experimental animal as a model in the laboratory.

I do not think that laboratory medicine is going to help in regard to behavioral disease, except to provide an occasional snippet from the fringe. The reason for my pessimism is the complexity of the situation. Science is concerned with reproducible phenomena in which there is only one or a small number of relevant variables. Observation tells us that there are genetic individualities in every human brain, and that temperament, interests, and intelligence are all modifiable by upbringing. The individual differences at the behavioral level between any two adults who are not identical twins are so great that when we speak of medically abnormal behavior we are dealing with a gross difference indeed.

If there is to be a science of normal and pathological behavior, it is going to be unlike chemistry or microbiology. It will be a logical structure concerned only with behavior, not with the biochemistry of the nerve cell, anatomy of the nerve paths, or details of muscular physiology. Again, I have only an outsider's interest and am only aware of the headlines, as it were, about what is happening.

I shall, however, say a little about animal ethology. There is a strong undercurrent of thought that looks to studies of animal behavior to provide a basis on which to build a scientific approach to human behavior. Perhaps I can express my attitude by saying that I regard these findings as providing model situations, invaluable as a base on which to start thinking about human problems, but with no application to the practical solution of any specific problem.

Probably the most important concept is that of the dominance hierarchies which develop in mammalian and bird communities and which are not unknown in our own species. With the possible exception of sex, the pressures and counter-pressures of dominance and submission, authority and loyalty among men provide the greatest contribution to behavioral difficulties in both social and medical contexts. An understanding of animal behavior can be enlightening. An example is baboon society as seen in crowded quarters of the London Zoo compared with baboon troops in South Africa—in the Zoo, a quarrelsome, often murderous dictatorship, with sexually obsessed dictators; in the wild, a well-disciplined troop, led by a senate of old males and with sex in its necessary but inconspicuous place.

There are instinctive patterns or established traditions as to how each generation of the young is prepared to take its place in the adult social group at every level of the primates, from monkey and baboon through the great apes to primitive and historical

Condensed with permission from the *Medical Journal of Australia*, 2(1):33-51, 1969.

man. It is from some of these instinctive and traditional approaches, rather than from any logical consideration of what seems to be required, that we are likely to find hints as to how to handle the deviant individual. We can think of the rites of initiation of adolescents into adult society which are seen from the most primitive to the most sophisticated societies. There is the complex group of social phenomena, including mass conversion and related religious manifestations, brain-washing and group psychotherapy, in which shared emotional experience is more intense and, in the appropriate circumstances, more socially effective than any individual approach.

There is no question in my mind of the infinite importance of behavioral deviations from the norm in political, social, and medical spheres. I am pessimistic about what science can do to help us. In many ways this is a counsel of despair, for we are as troubled about war, crime, delinquency, and mental disease now as ever we were. The essence of a scientific approach is that it works. I hope someone can persuade me—demonstrate to me—that he has an approach that will work.

Anthropology and Medicine by M. G. Swift

I propose to work from the definition of anthropology as the science of cultural behavior. This means that the anthropologist approaches human behavior as understandable in terms of standardized ways of acting learned through membership of a human group.

Once we approach sickness and its treatment from the perspective of behavior as learned and varying between groups, a number of avenues are opened. One concerns the differential incidence of disease between human groups in ways which are not explicable through genetic or environmental agencies. We do not need to refer to culture to explain the incidence of malaria where the anopheles mosquito is common. But there are examples in which the link between cultural practices and disease seems to be direct, e.g., the incidence of forms of cancer among the Singapore population, and an assumed link between these variations and differences in dietary and other habits.

Less well known is the connection between glaucoma, sanguinarine, and the use of poppy seeds on Jewish bread. Here we see a clear link between culture and illness, but is this also a link between medicine and anthropology? I would argue that it is not. The only role that the anthropologist can play is to supply information on exotic cultures to the scientist who provides the explanation of the connection between illness and cultural practice.

Let us pose a different question. When it is established that a cultural practice is medically undesirable, we face the question of how to induce people to abandon this practice; it is more a matter of why do they do it than the consequences of doing it. Inducing people to change their way of life requires the skills of the social and cultural sciences.

In Malay society, for instance, childbirth is surrounded by taboos, especially restrictions on diet and movements of the mother for 44 days after the birth. We need to appreciate that the taboos are not simply medical techniques but are life-crisis rituals.

They are concerned with well-being of a ritual and supernatural kind, not with mere physical health, and they have important implications for the whole group of which the subject is a member. Where cultural practices are deleterious to health, policies will need to be carefully phrased in terms of the total social and cultural context, not merely as matters of better medicine.

A second avenue is non-Western medicine. From the anthropological point of view, this is an area in which vital human interest is concerned, making people's medical ideas and practices a very important aspect of their culture; the anthropologist is able to discover what these ideas and practices are, but is less able to say whether traditional treatments work, and if they do, why. On the medical side, it would be nice if we could hold out the prospect of discovering wonder drugs in some primitive pharmacopeia, but I cannot believe that this is realistic; at a lesser level, the response of people to medical treatment is affected by their attitudes toward it, and a knowledge of popular attitudes and expectations is a vital element in understanding the doctor-patient relationship.

The nature of illness has an important element of cultural definition. Here we introduce the notion of sickness as a social role, a role characterized in many societies by marked elements of dependence in which the sick person with certain costs (social and psychological, as well as economic) becomes entitled to attention from his fellows.

One idea in the study of health in anthropology has been that of stress. Culture is seen as meeting human needs, but also making demands for performance by members of the group varying with their place (status/role) in it. These demands are more or less stressful for the individual, and in some cases so great that he has to seek relief through avenues such as sickness, emphasizing symptoms which might in happier circumstances be shrugged off as inconsequential, or in psychosomatic illness, or in extreme cases, through severe mental illness. The anthropologist's role is to analyze the culture in terms of the stresses it creates through the demands it makes on the occupants of the various roles recognized in a particular social structure.

An example is drawn from Malay society. Malay peasants show a stoical acceptance of aches and pains, cuts, festering sores, abscessed teeth, broken limbs, all illnesses common in an Asian peasant community. But they make a lot of fuss over fevers (deman) which seem to require no medicine and which respond to treatment to cast out evil spirits. This is related to a view of illness in which some illnesses are treated by Western medicine, while others are felt only to respond to native treatment. Deman may indicate that some dietary or other rule has been broken, with the result that the body is too hot or too cold, or it may indicate that one has offended one of the spirits which infest rural areas, or, if the condition is severe and persistent, that someone has worked evil magic.

If one believes that the world is full of evil spirits, it is natural to assume that a feeling of discomfort signifies the anger of one of these spirits, with attendant anxiety to emphasize the indisposition. It is my belief that there is a sociological feature involved. Malay

culture precludes the expression of emotion. But if a person needs support, he will get it if he falls ill. People make visits, gather around the bed; the magician's treatment is the occasion for a social gathering. I see the existence of these illnesses as partly explained as culturally accepted devices for evading some of the stresses induced by cultural rules.

There is no doubt that the future will see a more extensive use of behavioral science in the solution of problems associated with illness. I expect one aspect will be to redefine some problems out of the province of the medically trained. This redefinition will pose many difficulties for the public, the medical profession, and the social sciences. The public will have to learn that the attention of the behavioral scientist does not mean that they are lunatics or paupers, the medical profession will have to accept some shrinking of its area of competence or a revision of its training programs, while the social sciences will have to stop talking about what could be done through the application of social science to medicine and begin to demonstrate it.

The Viewpoint of the Human Biologist by Stephen Boyden

It is odd that the study of the biology of the species to which we ourselves belong should only now be emerging as a distinct and respectable scientific discipline. Only within the past few years have textbooks appeared on human biology and, even now, little has been written on the biology of man in civilized society.

The outstanding feature of the biology of *Homo sapiens* is the extraordinary change that has occurred in his conditions of life in a short period. It is a fundamental biological principle that changes in environmental conditions of an animal population give rise to signs of biological maladjustment, which are manifest in various forms of ill health. If the changes persist, there are two solutions: extinction or evolutionary adaptation.

This generalization applies to animals in the wild state. Civilized man is in a unique position in that there are two further possible outcomes to persistent environmental changes: cultural adaptation—deliberate attempts to overcome the biological maladjustment through cultural processes, such as public health measures, restoration of vitamins to diet, administration of antibiotics and tranquilizers; and pseudo-adaptation—prolonged persistence in the population of states of maladjustment, arising out of the protection that civilization affords to the individual in a state of ill health and to his progeny. This process allows the species to survive and multiply even though the individuals may be in a state of biological maladjustment that would not have allowed reproductive success under the rigorous conditions of preneolithic society.

It was only 300–400 generations ago that man abandoned the old pattern for a way of life based on cultivation of plants and domestication of animals for food. Since then, there has been, with certain exceptions, little opportunity for substantial change in the genetic characteristics in response to new selection pressures associated with the conditions of civilization. The rate of environmental change has outstripped the rate of evolutionary adaptation, and there has not evolved a new breed of man well adapted biologically to the conditions of the modern world. The fact that the

human species has survived the changes in its conditions of life and has even increased in numbers is due to cultural adaptation and pseudo-adaptation.

I shall not attempt to list the biologically significant changes in the total environment of the human organism. Suffice to say that there is no aspect of the biology of man that is not affected: his reproductive, digestive, respiratory and circulatory systems, musculature, auditory and visual apparatus, interaction with members of his own species as well as with members of other species, his biological time budget, and his patterns of behavior. Because many biological reactions not only result from cultural changes, but frequently have far-reaching social effects, it is in this area of study that the human biologist finds his interests overlapping with those of the social scientists and students of the humanities.

Since this aspect of human biology is in an embryonic state, much of what I say will concern the contribution of human biology in the future.

The state of health of any animal at any given time is a function of its total environment. Because of this, patterns of health and disease differ from one place to another and from one point in time to another. The high incidence of infectious disease due to bacteria, which was characteristic of the most advanced civilizations until recently, and the high incidence of relatively mild virus diseases in modern urban society are examples; both are consequences of biologically important changes in the environmental situation.

It would be easy to continue by giving examples of the effects of physical environmental changes associated with civilization on the tissues and physiological processes of the human organism. But I shall take the more hazardous course of discussing the behavior of modern man in relation to problems in medical science.

The changes in the total environment of an animal that give rise to signs of maladjustment may be physical (temperature, noise levels, quality of available food and air, etc.), or they may, especially in man, involve his behavioral patterns (e.g., sexual behavior). These changes may give rise to forms of biological maladjustment affecting physiological systems (e.g., peptic ulcer, tuberculosis) or behavior (e.g., psychosis, aggressiveness) and in some cases affecting both. Thus, it is reasonable to consider the influence of environmental factors on behavior, as related to medicine, under two headings: primary changes in behavioral patterns, which are imposed by culture and which may give rise to biological maladjustment, and disorders of behavior, which are manifestations of biological maladjustment caused by physical or behavioral changes in environmental conditions.

I shall give a few examples of primary changes in behavioral patterns that have come about as a result of cultural pressures, and which may be suspected of contributing to ill health. One concerns feeding behavior and the rituals that have developed around eating. The institution of "mealtimes" is perhaps the most notable. The individual, regardless of his state of hunger, finds himself at the appointed times at a table with food laid before him. Other rituals are the "refreshments" at social functions, and the notion that entertainment must involve a meal, which the guests

feel impelled to eat. There is little doubt that these customs contribute to disorders associated with overnutrition.

Social developments have imposed change in the sleep pattern over the 24-hour period. Evidence from culture of the preneolithic type indicates there is usually more than one spell of sleep during the period. Most sleep is taken during darkness, but usually there is a dozing-off during the day, around noon or in early afternoon. This pattern is characteristic of other primates. Our cultural institutions usually prohibit sleep during the middle of the day. I believe that a fair proportion of the population feels sleepy during daylight hours. There has been little or no investigation of the socially important question of whether interference with the "natural" sleep pattern has effects on, e.g., mental performance, mood, and the quality of personal relationships; there is anecdotal evidence to suggest that studies on this problem would be worthwhile.

Most behavior patterns of man are learned, and they are determined by the customs and mores of his society. Where we should draw the line between innate behavior and behavior determined by conditioning and learning has long been the subject of controversy among psychologists who have yet to reach any measure of agreement. It would not be sensible to become involved here in this debate. However, I believe that biological theory and knowledge support the view that man has inherited certain behavioral traits from his primate and hominid ancestors, and that these have an influence on his behavior in any society.

The biologist who accepts that certain forms of behavior have a genetic basis and that they were of survival value at some state during the evolution of the species is interested in what contribution these innate characteristics make to the behavior of man in modern society and whether they are still beneficial.

An example is man's innate liking for sweet-tasting foodstuffs. Before the advent of technological procedures for refining sugar, sweetness was encountered chiefly in fresh fruit; it seems that natural selection had rendered fruit palatable to man, presumably because of its nutritive qualities. The environment has now changed with respect to its content of sweet-tasting foodstuffs, in that there is an almost unlimited quantity of sugar, and in that this sugar has been separated from all other nutrients with which it was associated in preneolithic times. The innate tendency to consume sugar leads to the consumption of greater quantities than are needed. Not surprisingly, this behavior gives rise to biological maladjustment, including dental caries and obesity.

Another characteristic and one which must have had an important survival role is man's innate indolence. This trait played an essential part in the conservation of energy within the body and in the conservation of food resources in the environment. Even in affluent palaeolithic societies, people did not consume more calories than they required because they went hunting and gathering only when their hunger drive grew strong enough to overcome their natural indolence.

In modern society indolence has lost this biological function; it is obsolete as a mechanism for controlling food

intake, because the physical effort required to acquire food is negligible. In the absence of the need to hunt for food, we witness a marked diminution in the amount of physical exercise performed by the human organism. This is one of the most distinct behavioral changes associated with modern civilization, and it is certainly of medical importance.

The tendency to seek and partake of pleasure is a behavioral characteristic of man, as it is of all species. Just what activity or situation produces pleasure has been determined by selection pressures during evolutionary history; the animal derives pleasure from those activities which are necessary for, or contribute significantly to, survival (eating appropriate forms of food, drinking when thirsty, copulating with suitable regularity, etc.).

The situation in modern society is complicated, but one important aspect is the fact that man's ingenuity and capacity for experimentation have led him to discover ways of producing pleasure merely by ingesting or inhaling certain chemical compounds. This new manifestation of pleasure-seeking behavior frequently produces adverse effects on individual and social health. Persons who take these chemicals are following an ancient and biologically normal behavioral trait; the difference lies in the total environment, which now includes these readily accessible chemical shortcuts to pleasure. Whatever our views on the moral issues relating to the use and abuse of drugs, we must accept the fact that the introduction of these substances into the environment has created a new biological situation for the human organism.

The possibility must also be considered that in the case of certain behavioral characteristics, the changed conditions may prevent their expression in "natural" ways (i.e., behavior which they would have elicited under preneolithic conditions). An example of an effect of cultural interference with natural outlets is seen in homosexual behavior in situations which prohibit interaction with members of the opposite sex. This environmental change is not a general characteristic of modern society, but only of certain institutions, such as prisons and English public schools.

A salient feature of the behavior of preneolithic man was his interaction with other animal species, which were of everyday significance as sources of food and predators; the removal of these other species from his experience represents one striking biological change that has occurred in the life of *Homo sapiens*. If we accept that innate behavioral traits do exist in man, it would be reasonable to suspect that some of them might have had to do with this interaction with other animals, on which his survival depended. For example, during the few hundred thousand generations that our ancestors in the hominid line were engaged in predatory activities, there may have been genetic selection for "aggressiveness" toward other species, with the result that individuals may have engaged in hunting down, attacking, and killing of prey, apart from any indirect pleasure that this series of actions could lead to satisfaction of the hunger drive. If this supposition is correct, then we ask what are the behavioral and psychological consequences of the removal from our environment of the means of satisfying these innate behavioral traits in a "natural" preneolithic way. Even if we do not accept the view that there are in

man any truly innate behavioral traits associated with hunting, few would deny that this daily interplay with other creatures must have acted as an outlet for "non-specific" aggressive feelings, an outlet unavailable to most of us in modern western society.

In the case of certain behavioral traits, it may be only in the presence of a specific stimulus that lack of an outlet leads to frustration or other undesirable consequences. This point is of interest to the human biologist, because variations in the levels of stimulation of certain biological urges constitute an important class of environmental changes associated with civilization.

New elements have entered which distort the ancient pattern of stimulation of behavioral traits in man. One of the most important is 20th century commerce, with its sophisticated technology and powerful propaganda. Its most obvious effect is in stimulating feeding behavior and the sexual drive.

Turning to disorders of behavior, a new theory has recently been put forward to explain the decline of the Roman Empire. There is evidence that the citizens of Rome were exposed to considerable amounts of lead (water pipes, utensils, paints, ornaments, etc.), and analyses of human bones from that time show that substantial quantities of the metal were gaining access to the tissues. One effect of this exposure was a high incidence of infertility through the capacity of the metal to interfere with physiological mechanisms important in reproduction.

There may be some truth in this idea, but it seems to me to be unnecessary to introduce speculations about the effect of exposure to lead on the reproductive system to explain the Roman decay. Mild symptoms and signs of lead poisoning include: tiredness; lassitude; constipation; slight abdominal discomfort or pain, anorexia, altered sleep; irritability; anemia; pallor; and, less frequently, diarrhea and nausea. Surely a social syndrome in which most members of a population suffered from symptoms like these could account for the decline of their influence in the world.

The point of introducing this model is not only to draw attention to the fact that physicochemical changes in the environment can adversely influence the behavior of individuals and perhaps the mood of society, but also to emphasize that if such effects are insidious in onset and not immediately lethal, they may not be recognized by society or by the individual as a departure from health. One modification in man's conditions of life is the increasing degree of "chemicalization" of the environment. Technology adds some 10,000 new chemical compounds to our environment every year, apart from the increases in environmental concentrations of substances that have been in existence for a long while. Many of these compounds gain access to the tissues of the human organism, some deliberately, as drugs, additives to foodstuffs, and so on, and others incidentally, as contaminants of food, water, and air. The example of DDT is often quoted; it is said that some 20 tons are distributed among the livers of the citizens of the U.S.A. No obvious pathological effect has been observed, although the possibility of subthreshold, long-term effects cannot be excluded. This substance is

only one of thousands of biologically active substances which are getting into the body.

These new chemicals in our environment do not produce immediate lethal effects on the human organism; and this being so, they are perhaps acceptable to society. With regard to less drastic and chronic effects, we are largely ignorant. The fact is that, in general, the tests which pesticides, food additives, and so on are required to pass do not include the measurement of behavioral parameters.

I have argued that there are good reasons for the view that there is a progressive increase in relatively mild physiological disturbances associated with the advance of civilization and the constantly changing environmental conditions. If this view is correct, the question arises whether the progressive accumulation of mild and chronic physiological disorders may affect the behavior of man in society and the mood of society as a whole. Although this is an important question, we cannot begin to answer it because little work has been done on the effects of mild and chronic illness on mental performance and behavior.

A discussion on behavioral disorders associated with the conditions of life of civilized man would not be complete without reference to "crowding." It is a well-established biological principle that unusual increases in population density give rise to changes in behavior as well as to pathological lesions in certain organs. Cannibalism, neglect of young, violent aggressive behavior, and homosexuality are among the aberrant forms of behavior that appear in rats as population density becomes unusually high. We cannot extrapolate from rats to the human situation, but it would seem important that serious investigations should be carried out on the physiological and behavioral reactions of the human organism to variations in numbers of social contacts.

In concluding, I consider that the emerging scientific discipline of human biology has an indispensable role to play in our efforts to understand the human situation today in scientific terms.

Psychology by R. M. Mowbray

Over the last 20 years, the most persistent comment on the content of the medical curriculum has been the lack of teaching in psychiatry and the psychological aspects of disease.

Psychiatry is now recognized as a major clinical discipline in the undergraduate curriculum. I want to draw your attention to an event associated with psychiatry's entry into the curriculum; the introduction of psychology, a discipline which is not identical with, nor even necessarily identified with, psychiatry, and which has existed—independently of medicine—in arts or in science faculties of universities.

The definition of behavioral science, as far as a statement of words goes, presents few problems. If the subject matter is behavior and the method of study approximates the scientific method, then you have a behavioral science. However, there are some implications in the term about the nature of behavioral science. Should the behavior to be studied be human, or do we include animal behavior? The comparative approach has the advantage of providing a reasonably uncomplicated area in which to make observations and from which to generate hypotheses or

explanatory concepts for studying human behavior. It would be inexpedient to restrict ourselves to human behavior as we would be denying ourselves access to the findings of the animal behaviorists—the ethologists. The price to be paid is that we have to harbor doubts about how readily the findings from animals can be translated to the human situation.

The second implication is the extent to which scientific method can be applied to behavior. You may object that behavior is a funny thing to be scientific about, and that mankind has managed to behave for long enough without needing a scientific explanation. But man is a curious animal, and he gets curious about what makes himself and his fellows tick, and being scientific is organized curiosity or "disciplined nosiness."

Psychology can be classified as a social science and as a behavioral science. Because it is concerned with issues that are common with the other sciences focused around the evolutionary dimension, it is also a biological science. Because it is a derivative study, psychology has multiple facets. It is concerned with a variety of ways of looking at behavior and experience in a number of different conditions, some contrived and artificial in the laboratory, some in the more natural setting of a group or community.

Let me turn to consider what medical teaching can get from a liaison with this discipline. Although the intention to bring psychology into the medical curriculum has been established, it is not clear what should be taught, and there is some confusion as to why it should be taught.

The realistic aims are, first, that the student should be instructed in enough psychology to make him aware of the field, to give him some idea of the methods of study so that he can develop a frame of reference in which to make judgments about the relevance of what psychology has to offer. This is properly begun in the first year by a broad introductory course. The introduction is important, as this is probably the first encounter the student makes with behavioral science.

The second aim should be to provide building bricks for certain parts of medical education—the psychological development of the child as part of the basic teaching for pediatrics, sociology of illness for social medicine, psychology of emotion for psychosomatic illness, relationship between normal psychological functioning and psychiatric symptoms, etc.

The third aim is to extend the implications of the traditionally taught knowledge of structure and function in the biological sciences. The human organism behaves in a number of environments and does so in a consistent and sometimes unique manner, reflecting an individual person.

The aims of teaching psychology in the medical curriculum are centered upon the assertion that psychology contains a growing body of knowledge about human behavior that is systematically derived, and is as strong or as shaky in terms of fact as is the content of any other discipline dependent upon the hypothetico-deductive method. In this sense, it is self-evident that psychology should be in the medical curriculum at the preclinical level.

This is not the role cast for psychology in some reports on medical education. Let me paraphrase the kind of argument that is used in justi-

fying psychology's entry into the curriculum as it has appeared in a number of these reports.

There have been great scientific and technological advances in medicine—so much so that there is a danger of the student becoming so preoccupied with the minutiae of the specialties and the techniques of the laboratory that he loses sight of the patient as a "whole person." What is required is some counterbalancing element—psychology. The first part of the proposition—that medicine has become too scientific and technological—is, I suspect, an extension of the general sentiment that things are not what they used to be. However, even if we grant that this is true, it does not follow that psychology is the discipline to offset too great a concern with science and technology.

The error is to assume that a knowledge of human behavior is identified with a humanitarian attitude. In dismissing this justification for psychology as fallacious, I am not destroying the case for psychology. If I am unsympathetic to the claim that psychology is a tenderizer to be applied to the hard meat of medical training, I can still find some justification for psychology of the systematic kind.

As medicine has gained knowledge, the significance of environment has become clearer for understanding certain forms of illness. At first the impressive environmental factors were physical—climate, purity of the air, then economic and dietary, then occupational, then social, then personal to the patient in his social and family setting and biography. Medicine has evolved, or borrowed, techniques to take account of these environmental factors in systematically studying disease. If the relevant factors in an illness appear to include "matters of the mind," there is no reason to suppose that these must necessarily remain imponderable or matters for conjecture or intuition, and therefore outside the frame of reference of systematic inquiry. Perhaps one task for behavioral science is to demonstrate that an approach to the mind need not involve the esoteric or mystical, but can be examined in a frame of reference not too unlike that in which physical factors are examined.

Psychology by itself is not going to revolutionize the medical outlook. In the long run, the real contribution of the behavioral sciences to medicine will begin when they are established in the curriculum as separate departments to which, like other departments, medical graduates may return to teach and for further work or study.

How will we know that these changes are occurring? The signposts will be the development of a climate of opinion where the surgeon feels as uncomfortable at having missed the diagnosis of depression as the psychiatrist who misses an upgoing toe; and the stage at which the routine examination of the patient involves attention to psychological and social factors along with physiological and pathological factors, so much so that the doctor is unaware of whether he is being "psychologically minded" or "organically minded." The final signpost will be a meeting at which the anatomist and physiologist plead their case for more time in the curriculum, in order to offset too great a bias toward behavioral science.

Social Medicine by Basil S. Hetzel

I speak as a clinician looking to behavioral science (particularly sociology and social psychology) for help in medical management, medical research, and medical education.

Sociology is concerned with the study of groups, including both the interaction of individuals within the group, and interactions of the group in the social environment. Social psychology is concerned with the interplay between the social environment and the psyche. An important concept is the idea of adaptive or purposive behavior in relation to the social environment as the setting for the onset and management of illness.

The following is a list of areas in medicine in which sociology and social psychology are relevant: distribution and etiology of disease; cultural and social response to illness; social and cultural aspects of medical care; mortality and social class; organization of medical practice; sociology of helping professions; sociology of the hospital; community health organizations; medical education; social psychiatry.

I shall begin by discussing medical management of the patient and then move on to the sociology of the doctor-patient relationship. I shall use several terms that are current: social position or role, referring to a recognized position in a group, social structure, referring to a group of recognized positions or roles, and social system, referring to the relations between social positions and social structure.

From the point of view of medical management, there are two aspects of disease, the mechanistic and the personal or social.

The mechanistic aspect points to the defect in mechanism which underlies disease; understanding this defect leads to specific measures in treatment. The defect may be biochemical, physiological, or genetic, and therapy is based on a pharmacological approach, surgery, or even a special technique in physiotherapy, based on understanding of the mechanistic defect and ways in which it may be compensated.

Coming to the personal and social aspect, we are concerned with the human setting of disease and the patient's reaction to it. This includes the social factors and environment that may have played some part in causation and are important in management. These factors comprise occupational and family aspects as well as cultural background. Therapy is designed to provide support, not only by the doctor, but also by the family and friends. Insight may be necessary, and this will be achieved by talking with the patient to help him understand his predicament and to take appropriate action in his life situation. In hospital practice we often look for help from the social worker, who is trained in the provisions of the modern welfare state which have become so important a part of management. Management from this aspect has been called "the art of medicine," in contrast to the other aspect, which has been called the "science of medicine."

All of us in medical practice know how important the personal view, the human setting of disease, is in management of chronic illness and disability. A major part of our hospital morbidity is chronic illness—chronic heart, chest, brain disease, as well as chronic disability arising from accidents. These patients are often discharged from the hospital with the

remark that nothing more can be done for them, and the general practitioner receives the patient to cope with. Certain problems will soon arise. One concerns the quality of life for the patient and a second concerns the prolongation of life. Such questions of quantity and quality raise a new dimension involving family, friends, leisure activities, employment problems, and ultimate questions, philosophical questions about the meaning of life. Such questions cannot be solved within the dimension of mechanism and never will be, no matter how wonderful our biochemistry.

In addition, we are confronted with psychological and behavior disorders. Patients suffering from an overdose of drugs are familiar in casualty departments in general hospitals. These patients are in situations of social crisis, needing intensive counseling. The prominence of these problems in medical practice suggests that we should be spending more effort in research in this area of social aspects of management, and here we look to behavioral science, particularly social psychology and sociology.

Let us begin by examination of the basic relationship in medical practice —the doctor-patient relationship. Three major views of the doctor-patient relationship have been put forward. The student has been told that the personal problems of the patient are in the realm of the "art of medicine," which he will acquire with long experience. There has been implicit the notion that the art cannot be "taught" but must be "caught" from seniors. I do not agree with this view.

Another view of the doctor-patient relationship considers the doctor as a "drug" and tries, in a sense, to describe the "pharmacology" of the doctor himself in relation to the patient. This approach does not provide a comprehensive enough frame of reference in which to consider the doctor-patient relationship. Exposition of Freuds' insights of the mechanisms which patients use to defend themselves from painful thoughts and ideas has been a permanent and useful contribution. However, preoccupation with the intrapsychic structure of the personality distracts attention from the social environment and limits the possibilities for therapy and constructive thinking in relation to the social environment.

A third possibility is consideration of the doctor-patient relationship as a social system, defined as a whole composed of independent parts, whose unity is based on relations. Any change in one part of the system sets off simultaneous variations throughout the whole. The system is conceived as a structure in dynamic balance. According to system theory, the doctor and the patient are not two unique human individuals spontaneously interacting together. Each plays a social role, more particularly the doctor's role and the patient's role, and much recent work is an attempt to understand these roles as patterns of expectant behavior derived from cultural and social background. These expectations have nothing to do with the doctor in question. They are expectations about how doctors are supposed to behave. The doctor sees the patient with a certain set of expectations about how he or she should behave. The doctor has a self-concept; even though he may not always behave as he expects, the concept is always there and influences the relationship.

In considering these roles, it is helpful to use the concept of field theory. The field consists of various social forces which affect the individual. Doctor and patient move in individual fields which determine their attitudes and behavior. I should like to consider the field of the medical student, the field of the doctor, and the field of the patient.

We have a more cosmopolitan population in our medical schools than before the war. Our students come from a broader range of social backgrounds than before the war, when most came from the upper middle class. Most have a scholarship subsidizing their education.

For three years the students continue in the scientific field with extensive work in biology, biological chemistry, anatomy, and physiology. They come to the hospitals with further major infusion of the paraclinical sciences, pathology and microbiology, and are oriented to mechanistic aspects of disease. The mechanisms of enzymic defect, nutritional disturbance, infection, immunological disorder, or cancer dominate the landscape. Working in the hospital ward, the student is confronted with a bustle and pressure of work which concentrates on the problems of diagnosis and management, with emphasis on the mechanistic aspect. It is not surprising that personal and social aspects of management have low status and priority.

Studies on medical students have revealed evidence of a "subculture" among the students. Views about this subculture vary. There are two main ones which can be contrasted.

For one group, the emphasis is on finding the spectrum of medical "values and norms" that are incorporated in the medical school, and on the processes whereby the school functions as an institution for conveying to future members of the profession a "body of shared and transmitted ideas, values, and standards". The other group looks at the medical school as a more separate and distinct institution in its own right, an institution of higher learning, a graduate school characteristic of the university rather than a professional school. This group shows the student as a "boy in white" in a deliberately sustained subordinate position, separated from the faculty by a high social barrier, forced to undergo a "trial by ordeal" before he is allowed to qualify for entrance in the profession. I suggest that identification of the characteristics of the student subculture is important to future medical education. Without a clear concept of the processes, attitudes, and social structures that operate in medical education, it will not be possible to develop it constructively to meet the needs of the future.

The doctor's field varies according to his age. Doctors who have graduated before the war have a different background from those who have graduated since, and it is common for more recent graduates to be regarded as incompetent by their elders. Recent graduates tend to be regarded as well trained in medical science but incompetent as practical doctors.

However, looking beyond this, a doctor's attitude to his patient is affected by his membership in the medical profession, with a middle-class professional ethos. It is affected by his involvement with some special medical group. It is also affected by his involvement in an institution such as a hospital, and there may be competing claims arising from his role in

the community and his role in the hospital. His relationship to other helping professions and to the community are peripheral, and have to be developed without any guidance from undergraduate or postgraduate training.

Yet, these areas are important, even to doctors who practice entirely within a hospital. The picture that emerges is of a doctor whose attitudes are conditioned by undergraduate and postgraduate education, concerned with the interface between biological science and medicine, professional groupings and institutional loyalties. Such a doctor is not adequately prepared for work in the community and these factors are responsible for an image of the doctor as remote, uninvolved, and conservative. The need for understanding modern urban society and for better training in community aspects of medicine at undergraduate and postgraduate levels is apparent. There is an urgent need for medical leadership to help the community deal with social problems varying from adolescent behavior to alcoholism, accidents, and marital problems. Such medical men must learn to work in an interdisciplinary team, involving sociologists, social workers, and ministers, as well as members of service clubs, businessmen, and other concerned representatives of the community.

The patient's field includes his situation in the great human cycle of the seven ages of man, his employment, his financial position. A patient's attitudes are concerned with how soon he can get back to work, what the illness is going to cost, and what it means in terms of family life.

It is obvious that the field of the patient differs depending on whether he is in the hospital or at home. The field of the patient in hospital is a complicated one. We can distinguish four categories of people that impinge on the patient. Each group has interactions within itself which affect this impact. First the doctors include at least one senior consultant and a staff specialist as well as a registrar and house physicians. This group of doctors functions independently of the other three groups, namely the nursing group, the professional associate group, and the family and friends of the patient. The nursing group includes the student nurse, the staff nurse, the charge nurse and the domestic and/or the nurses' aide. The frequency of contact between the patient and the members of this group is in inverse proportion to status. The third group includes a variety of paramedical professionals including the social worker, the physiotherapist, occupational therapist, as well as a radiographer, a laboratory technologist and a hospital clerk (who assesses his financial state). Finally, the patient has family, friends and other visitors, his boss, his equals and subordinates and, hovering in the background, is a chaplain.

The field of the patient in the community is also a complicated situation. We have the medical team, beginning with the general practitioner who may be the only doctor consulted. If more specialized investigation is required, the patient will be referred to a consultant. He may then be referred to a further specialist for treatment. The patient's field includes his family and friends more intimately than if he is in hospital, and the employment situation is closer to him. His involvement with a paramedical group is likely to be less

than in hospital, but still significant. He may be receiving help from a community health or welfare service, from a voluntary or government agency.

Recent studies indicate the existence of a "lay referral" structure, beginning with family and friends who are consulted before the doctor is consulted. Such lay referral is more characteristic of, though not confined to, a simple society with a tribal system. At the other extreme is the social isolate in urban areas who proceeds from self-treatment to a large hospital. These examples indicate the importance of social factors in what is called "illness behavior." Further investigation of such behavior is of critical importance in improving the availability and "delivery" of medical care.

Social factors are important in relation to management and rehabilitation. The attitudes of family, particularly of the wife, the employer's attitude, all play a vital role which needs to be considered. Self-help groups such as Alcoholics Anonymous, the Multiple Sclerosis Society, the Ileostomy Club, etc., indicate that men can create new communities which can be valuable in nurture, remotivation, and rehabilitation.

Medicine of the future will require more understanding by the doctor of the total field of the patient. If he is going to remain a significant figure in medical management, it is essential that he understand the way in which the social environment can be mobilized to help the patient make a creative adaptive response.

The Veterans Administration and Community Mental Health: New Approaches in Psychiatric Rehabilitation

JOSEPH M. McDONOUGH

The barriers separating the large government hospital from the local community are beginning to crumble. For some time the Veterans Administration (VA), which supplies the greatest number of Federally supported neuropsychiatric beds in the United States, has been in the forefront of the movement to involve the government institution with a local community.

Perhaps the newest example involves one of the most traditional vehicles for the rehabilitation of the emotionally disturbed—the hospital-based sheltered workshop. Since 1957, the Menlo Park Division of the VA Hospital at Palo Alto, California, has been the site of the Veterans Workshop, a nonprofit corporation governed by a board of directors of private citizens and professionals. The hospital supplies space and personnel. Other support and financing come from funds earned in the production of goods and services by the workshop.

On-the-Grounds-Program

This program is based on the traditional sheltered workshop model. The effort is directed toward two goals: to provide a work-training and adjustment center in which patients with varying and usually lengthy periods of psychiatric hospitalization may be employed in a realistic work setting, for pay, and to provide steady and possibly permanent employment for discharged patients whose emotional condition will not permit them to be employed in the community. The type of work experiences are graded from simple tasks (dipping cans in paint for landscape nursery use) through intermediate tasks (salvage and reconditioning of telephone and radio equipment) to rather complex electronic assembly (soldering and wire harnessing).

Community-Centered Workshop

More recently, the Workshop has become involved in projects in the community which provide work-for-pay opportunities.

Service station—The hospital is located in a suburban community south of San Francisco and fronts on a busy thoroughfare lined with run-down service stations. One service station had been a source of embarrassment for the community due to its dilapidated appearance. In 1968, Veterans Workshop negotiated a lease with the oil company and since that time has been operating an increasingly successful business. Seven full-time patients are employed and receive training in tasks suited to their capacities. Services include mechanical work, lubrication, car washing, and the like. Everyone is delighted: the oil company with a brighter sales picture, the hospital and workshop staff with the success of the rehabilitation venture; and the community's council voted a commendation to the station

Condensed with permission from the *Community Mental Health Journal*, 5(4):275-279, 1969.

for its improved appearance enhanced by a profusion of patient-grown flowers.

The effect on the client-employees has been even more profound. A perceptible increase in self-esteem is apparent, and the service given to the motorist by these immaculately uniformed, energetic patients compares favorably with any service station in the area. The demand by competitive service stations for the "graduates" of the program has enabled a number of patients to find steady jobs.

House renovation—A second off-the-ground project involves the restoration of single-family homes that have been abandoned by the owner and have reverted to the financing agency. Many are in extremely dilapidated condition and require vast rebuilding and restoration. With the blessing of the local construction unions (another example of VA-community involvement, the workshop enters into a contract to rehabilitate the property. Crews of patients descend on the property and shortly have it in condition for resale. Tasks include plastering, painting, carpentry, floor tiling, etc., in addition to reconditioning of the grounds and landscaping. A continuing contract for lawn maintenance provides additional jobs for workshop patients.

Workshop-owned residence — An outgrowth of the house repair program and a possibility for further VA-community cooperation is the purchase by Veterans Workshop of one of the reconditioned properties. A group of workshop clients employed in the service station, telephone salvage, and house renovation projects reside together in a group-living situation. Room and board are provided by the workshop for a sum less than anything of a comparable nature in the community. One client is employed as resident manager/cook and is performing in a competent fashion. It is anticipated that a second house will be purchased for four additional patients. Again, this is an independent financial venture. Programs of this type, involving nonprofit corporations purchasing residential property, may be one answer to the shortage of community placements for discharged mental patients.

A final variation is the client who is employed by a private company after having "graduated" from the workshop program. Sometimes men trained in specific workshop jobs are employed by companies in the area. Occasionally, the client obtains employment in the main office of one of the firms doing business with the workshop on the grounds.

The increasing involvement between large mental institutions and the community has advantages for all. For the institution, community projects increase the avenues of patient rehabilitation. For patients such programs enable them to engage in meaningful work with all its psychological and economic byproducts. For the hospital staff, discouraged at the recidivism of discharged patients, the community-hospital cooperative projects provide inspiration to continue in their efforts. There also are advantages for the community. The mental patient can help to support himself as a fully functioning and tax-paying citizen with the pride and feelings of self-worth that this implies. The model of the self-supporting, community integrated workshop is attractive to the citizenry as well as an effective rehabilitation technique.

Network Therapy—A Developing Concept

Ross V. Speck and Uri Rueveni

We have been working on the hypothesis that pathology and schizophrenia involve higher social levels than the nuclear family and subscribe to a multi-generational transmission process. We believe that pathology is present in the kinship system of schizophrenics, in their friends, and in their neighbors. We believe that "madness" is a failure in communication and that "mad" modes of communication are maintained in the system around the "schizophrenic person" and his family. Our goals are to increase the communication within the social network and between members of the schizophrenic family and their kin, friends, and neighbors.

We conceptualize this process as tightening the bonds between members of the social network of the nuclear schizophrenic family, loosening the double binds in significant dyads or triads, and tightening the network of relationships within the social field. Social networks are composed of persons. The relationships between these persons make up the web of interconnected relationships within the social network. By gathering the network together in one place at one time to form a tighter organization of relationships, therapeutic potentials are set in motion.

By convening the social network of the schizophrenic family we are reconstituting a forgotten, covert, and often hidden group of persons and relationships. The purpose is to make the entire group as intimately involved as possible in each other's lives and to supply a strong sense of tribe support, reassurance, and solidarity.

The A family had been treated by conventional family therapy with little success because JoAnn, the 26-year old daughter and "schizophrenic person," had refused to attend. Mr. A was an alcoholic and a bright, unsuccessful professional. Mrs. A provided most of the financial support. JoAnn was a single, unemployed woman who had left home on only one or two occasions to walk the dog during the past five years. Verna, her 24-year-old sister, was doing well in graduate school, but was somewhat shy; it was the family's hope that she would become a psychiatrist. John, the 16-year-old brother, had dropped out of school at 12 and was living a hippie existence in a nearby city.

JoAnn had had individual psychiatric therapy from her early childhood. Mrs. A and Verna consulted us because of JoAnn's suicidal threats, her refusal to work or leave the house, Mr. A's alcoholism, the strong dependency between Mrs. A and JoAnn, and John's incipient schizophrenic withdrawal. The network was suggested as the rational approach to produce change in such a malfunctioning family system. Our assessment was that Verna's motivation was insufficient to overcome the family resistances to any approach to treatment, including family treatment.

Six four-hour sessions were conducted. The meetings were held in the home of the "schizophrenic" family; responsibility for the space as well as

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invitation of family members, relatives, neighbors, and friends was delegated to the family.

Our experience is that there is no difficulty in assembling the tribe. When crisis referral is received, we indicate that our preference would be a tribe treatment and that the family is to phone all persons who are significant in their lives. The invited persons are told that they are assembling to help the crisis in the nuclear family. They are told that there will be a team of professionals who will structure the meetings and treat the tribe.

In the sessions we talk the "not" language of schizophrenia. We ask the group what they should tell the schizophrenic family *not* to do. It is only in the later phases that we turn to a more secondary process type of advice-giving by the assembled network to the family.

Pre-session—During the pre-session, which was about 50 minutes before the main session began, group members began to assemble. The therapists arrived early, observed the arrival of members and installed the tape recorder. They chatted with the family as well as other network members, focusing on the latest news related to the family. The pre-sessions are useful and colorful, providing a great deal of information.

Main session—When the entire network was present, the members were asked to assemble into two concentric groups called the "inner group" and the "outer group." This structure was used to intensify interpersonal relationships among the members as well as to facilitate and sensitize the members to each other and to the "schizophrenic" family. At the end of each main session, a post-meeting reaction sheet was given to each member to write his feeling about how the session went that evening. The sheets were not signed. The contents of the group reactions were copied on large sheets of paper and brought to the next meeting to be hung on the walls and read to the group. This provided a wealth of material for the members to interact with.

A typical network meeting—We have been operating as a co-therapy team and have invited two to four other professionals to act as consultants. Their role is a training one in network or tribe therapy, but because of the numbers of persons assembled and the multiplicity of interpersonal events which occur at any time, it is an advantage to have another group of professionals who can make observations and report these to the team heads so that we can "huddle" to plot strategy or change our approach in the operation of the network meetings. We are informed about the state of the network both from the conscious and unconscious point of view by our team members who act as network information gatherers.

The network members are told that this is not similar to most conventional psychotherapies, that we are dealing with the tribe, that there are no secrets which will be treated confidentially. We explain that our purpose is to make all communication as overt as possible. Before a session begins there is a great air of tension and expectancy. We tape record from the moment we enter the home. It is easy to observe when the tribe has assembled and at this point we begin our formal meeting. In the first session we give a talk on the purposes of the network assembly and the goals of the group. In subsequent meetings we have a network news time in which

we bring everyone in the network up to date on all things which have been happening and all things which have been said. We violate all confidences which have been revealed in one-to-one relationships. This tends to heighten the tension.

The network is told that they have assembled to help the family. We then set up the inner group and an outer group with the purpose of sensitizing the network to the expression of feeling and intimacy in the large group. By using an inner and outer group a type of dialectic is set up in which a polarity of feelings occurs. Splitting the tribe into two concentric groups with different tasks produces an increase in tension which is desirable in the process of tightening the network. When the tension between the two groups becomes unbearable, cohesiveness of the whole tribe is facilitated. We call this process the synthesis.

The inner group starts first and tends to strip itself of conventional social defenses. The outer group tends to be critical of the inner group. Once a strong polarity has occurred, the therapists work on bringing about a synthesis so that the two groups then unite into one group with strong and cohesive feelings. When this has occurred, the therapists again set up a polarity and a dialectic so that a new movement toward synthesis must occur. When the outer group says that the inner group is superficial, a negation dialect is set up so that it provokes the inner group to try harder. The interaction between inner group and outer group makes the outer group try harder in turn. This forces all persons to try to heal each other.

Post-session—Following the main session, the tribe members meet in small groups to discuss whatever was important to them. We feel that these post-sessions provide the group members with a chance to interact on an informal basis, and even talk about the therapists.

Results, as in any other psychotherapy, are difficult to measure. That changes occur throughout the network, that individuals change jobs, tighten significant relationships, and become more aware of themselves and others, we have no doubt. The goal with this particular network was accomplished—loosening of the symbiosis between JoAnn and her mother. JoAnn, who did not want the network meetings, improved rapidly. By the third meeting, she was employed by a network member. By the sixth, she was determined to move to her own apartment (a move which she has since made). She is interested in dating. She is currently a very valuable assistant therapist in another network.

At the sixth meeting a questionnaire was administered. The responses revealed that 17 members felt the therapy was a phenomenal or good success. Seven felt it was fairly successful. No one felt that it was unsuccessful. Seventeen wished to continue the meetings after the therapists had finished their task.

The network therapy appeared successful in modifying the relationships in the schizophrenic family, in tightening their social network (meetings are still continuing without the attendance of professionals) and in providing a viable social structure for continuing encouragement, support, employment, and avoidance of hospitalization.

Innovation: The School Nurse As a Mental Health Specialist

HELEN C. PAZDUR

For my clinical experience in a graduate child psychiatric nursing program, I requested a school setting, and was introduced to staff and students as a nurse-counselor.

Working With Staff

I was included in weekly meetings with the principal, school nurse, counselor, and school psychologist to discuss problems. The first meetings were informative and helpful. As the meetings progressed, several members expressed concerns about confidentiality of our discussions, lack of communication regarding referrals, and, since members met together outside of our group meetings, a feeling that information exchanged was repetitive. Gradually, there were fewer meetings, and then they ceased. I had to contact individuals separately, and this was time consuming and inconvenient.

Attempts at making appointments with students became difficult. Some staff felt that counseling was a waste of time; that it could be done in the classroom by discipline; that unless I had taught children I didn't have the "know-how" of handling kids.

This resistance may have stemmed from a teacher's possessiveness of his students—a desire that students use him as "confidant." Teachers may also have had an apprehension that their students might be discussing them negatively. Some instructors perceived the counseling sessions as involuntary, others that the students were using counseling as an excuse to get out of class. The problem of counseling time was never resolved.

Staff who did cooperate were interested in the guidance program and were engaged in helping students discuss their difficulties. I found myself working more closely with these teachers by participating in classroom activities and/or asking to confer with students. The students, in turn, soon learned which instructors would grant permission to be excused.

At the end of the year, I submitted recommendations to the principal: continued workshops to increase the staff's awareness of students' interpersonal relationships and emotional needs; monthly meetings between the principal, counselor, psychologist, and school nurse; and continued opportunity for students to meet in groups for counseling and discussion.

Working With Students

I began participating in such activities as volley ball in the physical education classes, making clay pots in the art classes, and helping girls cook and sew in their home economics classes. This gave me the opportunity to interact and observe, and gave the students an opportunity to become acquainted with me. As I continued to participate, some students would ask who I was; others would request to see me.

As I became even more involved, I began to define the areas in which I was needed and most interested—indi-

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vidual and group counseling, group work with educationally handicapped students, and family life education.

Individual counseling—By having informal gatherings at lunchtime, I was able to make further contacts with the students. Several boys mentioned that the girls must be having problems since they were seeing me often; the girls stated that they felt freer to "girl talk" with a woman.

I counseled many students who came alone or with a friend or two. Those who came to see me individually usually had a "crisis" in their lives, ranging from conflicts with parents to anxiety about being "picked up" for shoplifting.

As students began relating to me, they became concerned with confidentiality. This was a recurring theme. Although I shared my activities and goals with the teachers, both formally at monthly staff meetings and informally in the teacher's lounge, I did not share the content of student discussions. Some of the teachers accepted this; others continued to inquire into certain students' problems.

Group work—educationally handicapped children—My second area was the special education classes. I was invited by the instructor to spend time with a seventh grade class.

The teacher used new ideas to help improve student behavior and motivation, including the operant learning approach. The students gained points during the week and then were rewarded with a candy bar, a free day to participate in games, or a visit to the library resource center. Students in this class, as well as outside students, referred to this group as the "dummy" class.

I recommended that the students become involved in a project they could present to other students. The teacher planned a project on which the students could work in teams. The project consisted of a strategically arranged obstacle course. The idea was to time people going through, and reward those who made the fastest time. Addition of psychedelic lights and "rock" music was also planned.

Halfway through construction, the students started bickering. Most difficulties were due to mechanical problems in building the structure, the length of time it was taking, and that some students were "goofing off." The teacher and I had the students discuss this situation.

The consensus was that they were getting bored. They set a date for presenting the program, and then tackled the problem of constructing the large objects. The students who were "goofing off" complained that there were too many people on one team and some were bossy, so the group revised the work teams and appointed a classmate to supervise the groups. The students began work again and completed the project with the assistance of other teachers.

They were pleased with the project and presented it to a kindergarten. They showed good judgment in handling the children. Each student selected a youngster for whom he would be responsible when running through the maze. Later, the students were invited to help the children in the kindergarten room, which they did with surprising interest.

The discussion group was continued, and the students realized that they could "air their gripes" without fear of retaliation. Some expressed their feelings about being in a "dumb" class. Another area of discussion was whether to continue with re-

wards. Every student was adamant about this; they especially wanted candy bars. They also discussed the disruptive behavior of several students. Their dialogue was surprisingly typical of adult groups; they were insightful regarding the reason for this behavior and confronted these students. This confrontation brought out one student's negative feelings about the class and the teacher. Both the student and teacher were able to verbalize their feelings with assistance from the group, and resolution of the conflict was made in a conference with the student, his friend, the teacher, and myself.

When the students evaluated their experiences with the project and group work, they stated that they had made a "big jump" in learning how to work together. One student said that her reward was being responsible for a kindergarten child—it made her feel good that she could be trusted. Although this experience did not eliminate the feeling of being in a "dumb" class, it did give the students confidence in themselves.

Family life education—The curriculum contained a course in family life education. The school nurse supplemented the course by developing a ten-week workshop for staff. By participating, I developed an understanding of what problems are encountered in teaching the course. Most teachers expressed discomfort in answering questions asked by students. Through these discussions, many teachers (including myself) became more comfortable with the idea of discussing sex education with children.

Soon after this workshop, the science department began presenting this course to the seventh grades. I worked with the students in small group discussions. Many students were relieved to discuss the subject with an adult who was not embarrassed. Some students started out by writing questions, while others asked verbally. Many questions pertained to the mechanics of sex and abnormal sexual behavior. The majority of the students who were acquainted with terms, such as sexual intercourse, really didn't understand what was meant until it was clarified with their own terminology. In sharing explanations, I also learned their jargon.

There were a few embarrassed giggles, and this was handled by reflecting back on their feelings. Sometimes, the girls would remain after the meetings to ask questions they felt were too personal to discuss in the group.

Today, the school nurse works as a member of a health team. She is a resource person, teacher, and liaison, as well as one who continues to help the child who deviates from normal both physically and psychologically. She is beyond the "band-aid" passing stage. School nursing is reaching toward a higher level of professionalism—it is in the process of change. This change includes increased skill in counseling with staff, students, and parents.

With additional preparation in the behavioral sciences and help in developing her skills, the school nurse can contribute more to student life and enrich her profession as well.

There is need for research in coordinating physical and mental health counseling which in turn would indicate the educational programs that would prepare the school nurse and help her to develop skills to work with children who need special help.

Appearance and Education in Marriage Mobility

GLEN H. ELDER, JR.

Marriage between persons of similar class-origin is partly the result of a process in which individuals attempt to achieve the best bargain for themselves or their children by weighing marital resources and alternatives. Conditions supporting class endogamy for high-status daughters are sought to preserve family lineage and status. A girl from the lower class has much to gain by marriage to a man of high social-standing or mobility potential.

The advantages of hypergamy for the low-status girl appear as status costs for the man, though what he loses in social rank may be surpassed by gains in other forms of status. Equity would require the woman to be exceptional in other qualities. The status-determining qualities of women include skin color, facial and morphological features, and relative age. Throughout history women have been able to exchange beauty for a man's family lineage, accomplishments, or mobility potential.

American men rank physical attractiveness near the top among the qualities they desire in women, and this seems to be especially true of the upwardly mobile or strongly ambitious.

Women in modern societies may surpass their family's status by their educational attainment and the accomplishments of their husbands. The sequence of high intelligence, a desire to excel, and entrance into college is a common path to high-adult status among women as well as men, and evidence suggests that ambitious women are most likely to use their physical assets to impress or charm high-status men. Although a woman's intelligence or ambition may indirectly influence her marital prospects through higher education, they are apt to have less direct relevance for her marriageability than physical attractiveness.

The object of this study is to assess these two modes of achieving higher status through marriage—an attractive appearance and educational attainment—in women from middle- and working-class families. The Oakland Growth Study was initiated in 1932 to assess the physical, mental, and social development of a sample of boys and girls from fifth and sixth grade children from five elementary schools.

Seventy-six members of the adolescent sample were contacted in at least one of the three adult follow-ups. Information on occupation, education, and marital status was available up to 1958 for all women in the sample.

Attractiveness—Information on the girls' appearance was obtained from observational ratings made by staff on good physique, grooming, sex appeal, and overall index of appearance.

Status aspirations—The status aspirations of women have been defined by goals such as their own education, material possessions, and the prestige of their future husband's job, and by the strength of their orientation toward high status. The rating is primarily an index of the desire for status or mastery within the high school or

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peer environment. The second index was a measure of the aspiration of high status.

Intelligence and academic aptitude—IQ scores were obtained by averaging scores on Stanford-Binets administered in 1933 and 1938. The girls' academic aptitude in high school was measured by the average value of two ratings on academic interest and performance made by three teachers.

Mobility through marriage—As a measure of mobility through marriage, we compared father's social position and husband's occupational status at approximately the same point in the life cycle.

Our findings were:

Class variations in attractiveness—Girls from the working class are likely to rank lower on attractiveness than middle-class girls. The social ascent of attractive women could produce class-linked genetic differences which favor middle-class girls on physical appearance. The nutritional advantages of a middle-class background or a measurement bias on the part of observers could also produce this difference in physical appearance. There may also be a relationship between family status and a well-groomed appearance.

Intelligence, aspirations, and academic aptitude—Whatever marital advantage middle-class girls derived from their appearance might have been enhanced by their greater access to educational opportunities. The data generally show differences in the expected direction, but they are small, with the exception of IQ. However, attractive girls were not more likely to aspire to high status in the future, nor were they brighter or more achievement-oriented than their less attractive classmates.

Mobility through marriage—An intergenerational increase in status through marriage was defined as upward mobility, regardless of family origin. Upwardly mobile and non-mobile groups were defined in each of the two social classes. Among women from the middle class, the mobile group was composed of women who achieved higher status through marriage.

The second group of middle-class women—defined as non-mobile—had husbands who were on the same relatively low-status level as their fathers. Sixty-two percent of the women from middle-class families were classified as having married high-status men.

The criterion used to define upward mobility among women from the working class was ascent into the middle class. Thirty-six percent were in this category; all their husbands were two or more occupational levels above the status of the subjects' fathers. The non-mobile group included 14 women who were stable in occupational status, three who lost status through marriage, and women who married up one level but remained in the working class.

Mobile women from the middle and working class were rated significantly higher in adolescence on attractiveness of physique, sex appeal, and overall appearance than non-mobile women of similar class origin. Mobile women of working-class origin were exceptional in appearance relative to non-mobile women, and resembled women from the middle-class who achieved higher status through marriage. In adolescence, mobile women from the working class were also more

likely to be seen as well-groomed than their less successful counterparts.

The rewards associated with feminine attractiveness suggest that pretty girls are conditioned to employ their bargaining advantage in dating and mate selection. Exploration of the adolescent heterosexual experience of mobile and attractive women from the working class provided evidence that the upwardly mobile were less likely than non-mobile women to go "steady" with one boy. Though they spent similar time with boys, the mobile women appear to have been more guarded and selective in relations with the opposite sex.

Class origin, appearance, and status aspirations—In family resources, middle-class girls have a bargaining advantage over their lower-status counterparts, and a large percentage succeed in marrying men who closely resemble them in background. A selective, demanding attitude toward suitors is an appropriate expression of social advantage. Although the class origin of women influenced their chances of marrying high-status men, this relationship was not as strong as that between attractiveness and husband's status.

Education and marriage mobility—The relatively more important role of education in the marital achievement of women from the middle class is most clearly expressed in college attendance and its relation to husband's status. Women from the middle class were more likely to have had at least some college, and, in the college group a larger proportion of these women than those from the working class were upwardly mobile.

Upwardly mobile women from the middle and working class were not brighter than the non-mobile. There is also no evidence of markedly different marital achievement between women who were rated high and low on academic aptitude by their high school teachers. Although one might conclude that intellectual talents have little bearing on the status achieved by the women through marriage, this ignores their effect on education attainment and its relation to the social standing of their husbands.

Although intelligence and academic aptitude had little direct bearing on marital achievement, this effect may vary according to the woman's appearance. The attractive girl who is also bright would have the advantage of the social skills and mating opportunities in college which are associated with intellectual competence.

There are other characteristics of the husbands of women—besides education and occupational status—which may affect the degree of homogamy, including physical attributes, handsomeness, and personality traits. If one or more of the above qualities are equal to feminine beauty, a man who marries a low-status, attractive woman may possess fewer positive qualities of this kind than one who marries a woman of equal status and attractiveness. Exploration of these interactions presents problems, but this research is needed to expand knowledge regarding marital exchange in social mobility.

Extended Sleep and Performance: The Rip Van Winkle Effect

JOHN M. TAUB and RALPH J. BERGER

Although the question of how much sleep we require has not been systematically investigated, studies on persons living in the Antarctic under conditions of continuous daylight showed them to average eight hours of sleep each night. A recent survey obtained an average duration of sleep of seven hours, 36 minutes, over ages 20 through 80, with higher figures reported by the youngest and oldest groups. Taking eight hours as a normal amount and on the basis of subjective reports of "grogginess" by persons when occasionally sleeping longer, our study tested the hypothesis that sleep in excess of that habitually taken is deleterious and would be reflected by decrements in performance measures following nights of extended sleep.

Subjects were seven female and five male college students, without medical or psychiatric disorder. Another criterion was that they usually sleep approximately eight hours nightly. They were asked to abstain from stimulating or soporific drugs, taking naps on days prior to the experiment, and not to drink coffee, tea, or alcohol after 6 p.m.

The experiment comprised two consecutive nights of sleep for each subject. Subjects slept eight hours one night, from 1 a.m. to 9 a.m., and 11 hours on the other night, from 10 p.m. to 9 a.m. A calculation and a vigilance task were administered as measures of performance 30 minutes after awakening. A fixed time of testing ruled out possible effects on performance attributable to variations in circadian rhythm.

The calculation task consisted of adding columns of five two-digit numbers with subjects instructed to solve as many problems as possible in 15 minutes. The vigilance task was a series of doorbell buzzes occurring at 2.5 seconds intervals. The duration of each buzz was .4 second with the exception of 15 that lasted .6 second. These 15 buzzes were interspersed at irregular intervals. Subjects were directed to indicate detection of these signals by marking a check on a blank score card. Duration of this task was also 15 minutes. The experiment was conducted in the quiet environment of the subjects' bedrooms.

Performance on the vigilance task was significantly poorer after 11 hours of sleep than after 8 hours of sleep for both scores: total number of signals detected and accuracy. Although the mean score on the calculation task was higher following the 8–hour sleep condition than after the 11–hour condition, this difference was not statistically significant.

The results suggest that the effects of extending sleep beyond eight hours or one's normal quota may be deleterious. We plan to test whether performance shows an inverted U-function in relation to length of sleep, with the apex occurring at eight hours or the amount of sleep a person habitually takes.

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Abnormal Cerebrospinal Fluid Total Protein and Gamma-globulin Levels in 256 Patients Admitted to a Psychiatric Unit

R. Hunter, Muriel Jones, and A. Malleson, with a statistical commentary by Catherine Duncan

Surveys of psychiatric patients in the 1930s showed that besides the abnormalities associated with syphilitic disease, there was a group with increased cerebrospinal fluid (CSF) protein levels for which no cause could be found. Techniques of investigation were limited, and this may be why such observations were not followed up.

From March 1967 to May 1968, of the 628 admissions to a mental hospital in North London, there were 256 patients from whom specimens of CSF suitable for examination were obtained. Since it was our purpose to ascertain the incidence of clear-cut abnormalities in a heterogeneous group of patients with mental symptoms, the upper limit of normal total protein was taken for men as 60 mg/100 ml and for women as 50 mg/100 ml.

Our experience is that in psychiatric practice gamma-globulin levels below 10 percent of total protein may be regarded in the majority as normal, values between 10–15 percent as highly suspect, and values in excess of 15 percent as definitely abnormal. All values of gamma-globulin in excess of 10 percent of total protein have been classed as abnormal.

Cell count—Two hundred and forty-two patients had cell counts of one leucocyte/mm^3 of CSF or less; seven had two, two had six, one had nine, and one had 40 leucocytes/mm^3.

Total protein—For the whole group, levels ranged from 22 to 122 mg/100 ml, with a median of 40 mg and a mean of 43 mg. Twenty-four men and 11 women had abnormal total protein levels as defined.

Gamma-globulin—For the whole group, levels ranged from 0.5–20 mg/100 ml with a median of 2.5 mg and a mean of 2.9 mg. Expressed as a percentage of total protein, gamma-globulin levels ranged from 1.2–23 percent, with a median of 6.2 percent and a mean of 6.7 percent. Two hundred and fourteen patients, 120 men and 94 women, had gamma-globulin levels of less than 10 percent of total protein, and 108 of these had levels of less than 5 percent. Thirty-two, 18 men and 14 women, had levels of 10–15 percent; and 10, eight men and two women, had levels of gamma-globulin greater than 15 percent of total protein.

Relation between abnormal total protein and gamma-globulin levels—CSF protein abnormalities were found in 68 of the 256 patients; in 26, abnormal total protein levels were found in the presence of a normal percentage of gamma-globulin; in 33, abnormal gamma-globulin levels were found in the presence of a normal total protein; and nine patients had both raised total protein and raised gamma-globulin levels.

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Correlation with serological and hematological findings—In patients with CSF abnormalities serological tests for syphilis were negative. Of the patients with raised total protein levels, three had raised erythrocyte sedimentation rate; two, raised fasting blood sugar; one, raised blood urea; one, anemia.

Of the patients with raised gamma-globulin levels, four women were anemic and one had a leucocytosis; one man had a raised blood sugar and urea and an ESR of 32 mm in an hour; in one whose gamma-globulin was 18.8 percent of total protein, electrophoresis of serum proteins showed a well-defined band between the beta and gamma bands resembling the M component of hypergammaglobulinemia, but there was no evidence of neoplasia or of other disease in the reticulo-endothelial system.

Correlation with EEG findings—EEGs were available in 132 patients. Fourteen of the 32 patients with abnormal total protein levels had abnormal records: in 10 they were mildly abnormal, in two, severely, and two had generalized and focal abnormalities. Of the 42 patients with raised gamma-globulin levels, 10 had abnormal records: in nine the abnormalities were mild or moderately severe, and one had a focal disturbance.

Correlation with psychometric findings—Psychometric assessment on the Wechsler Adult Intelligence Scale was made on 13 patients with raised total protein levels and nine with raised gamma-globulin levels; 12 were also given the Wechsler Memory Scale subtests. Intelligence quotients were lower in patients with raised gamma-globulin than raised total protein levels. Both groups showed a drop in Performance IQ as compared with Verbal IQ. Patients with raised gamma-globulin levels also showed greater memory impairment. In patients with raised total protein levels, Memory Quotients ranged from 79–137, while in those with raised gamma-globulin, they ranged from 58–96.

Psychiatric Correlations

Of the 68 patients with CSF abnormalities, 17 presented with depressive syndromes; 16, schizophrenic syndromes; 14, paranoid-hypochondriacal syndromes; six, alcoholic; four, drug intoxication; three, anxiety symptoms; three, cerebrovascular disease; and five, other gross neurological or systemic pathology.

Depressive syndromes—Of the 17 patients with depressive syndromes, eight had raised total protein and three also raised gamma-globulin; nine had raised gamma-globulin levels only. Of the patients with raised total protein levels, seven were men. Most were in the younger age groups. Total protein levels ranged from 62–80 mg/100 ml, gamma-globulin 2.4–15.3 percent. Six showed a significant degree of intellectual impairment. Six made complete recoveries and in five repeat examination showed that protein levels had returned to normal. Four dated improvement from lumbar puncture. The sixth patient was a man who had had four breakdowns. Initial puncture showed a total protein of 68 mg/100 ml, gamma globulin 7.2 percent. Two months later when he was improving the total protein was 65 mg/100 ml and gamma-globulin had fallen to 4.7 percent. Of the patients with increased gamma-globulin levels, four were men and five women. Gamma-globulin levels ranged from 10.2–21.4 percent of

total protein. All recovered except one who was admitted with a severe depersonalization syndrome.

Schizophrenic syndromes—Of the 16 patients in this group, six presented with states of excitement and hallucinations; seven showed severe autonomic and extrapyramidal disturbances with abnormal muscle tone, movement, and posture; two were catatonic; one had a defect state. Of the six with states of excitement, three had raised total protein levels. The remaining patients were in the younger age groups. Three had raised total protein levels, six raised gamma-globulin and in one whose gamma-globulin was in the high normal range it fell to almost one third of its original level on recovery.

Paranoid - hypochondriacal syndromes—There were 14 patients in this group. Seven had raised gamma-globulin levels ranging from 10.6 to 21.4 percent of total protein. The remaining seven had raised total protein levels and three raised gamma-globulin. In five the total protein levels were 100 mg/100 ml or higher at the beginning of their illness and remained raised throughout the period of observation. None recovered.

Alcoholism—There were six patients with psychiatric syndromes due to excessive drinking. The women were admitted because of acute disturbances following bouts of drinking which cleared rapidly: one had a raised total CSF protein of 54 mg/100 ml, and two had raised gamma-globulin levels of 10.3 percent and 11.2 percent of total protein, respectively. Two men had states of persistent alcoholic hallucinosis and both had raised CSF gamma-globulin. The CSF of one patient was reexamined three months later when he was improved, and the gamma-globulin had fallen to a normal level. The third man had an amnestic-confabulatory Korsakov syndrome, with a total CSF protein of 65 mg/100 ml, gamma-globulin 4.0 percent.

Drug intoxication—Through drug intoxication doubtless played a part in the symptomatology of patients in other groups, there were four men in whom drugs were directly responsible for states of excitement. Three had raised total protein levels and one a raised gamma-globulin. All recovered rapidly.

Anxiety states—Three women had severe anxiety symptoms of undetermined cause and raised total protein levels. The first patient, who had the highest gamma-globulin level in the group, had an abnormal EEG, had been treated elsewhere with ECT and drugs, and became a long-stay patient.

Cerebrovascular disease—Three patients were admitted with depressive states with mild confusional features. All were hypertensive with blood pressures of 160/130–200/150 mm Hg and had raised CSF gamma-globulin levels of 10.7 percent of total protein.

Statistical Commentary on Serial Punctures

Serial punctures were carried out on 43 patients. Initially, 12 had normal CSF protein levels and on repeat puncture they remained normal. Of the remaining 31 with initial CSF abnormalities, 10 presented with depressive syndromes, 10 with schizophrenic syndromes, six with paranoid-hypochondriacal syndromes; two were alcoholic, one had cerebrovascular disease, and two presented with other conditions (cerebral atrophy and uremia).

Of the 26 patients with CSF abnor-

malities in the depressive, schizophrenic, and paranoid-hypochondriacal syndrome groups, serial punctures were obtained in 22 at a later stage of the same episode, and in four repeat punctures were made during recurrence. Fourteen of the 22 patients had recovered or improved sufficiently to be discharged at time of final puncture. No patient with an initial abnormal total protein level had a final abnormal gamma-globulin, and no patient with an initial abnormal gamma-globulin had a final abnormal total protein level.

The proportion of patients with a normal final CSF is significantly greater in those who improved than in those who did not. In the 16 patients with initial raised total protein, the 10 patients who recovered or improved showed a fall in total protein. The corresponding values for the six patients with persistent symptoms whose conditions remained unaltered or deteriorated, was 103 mg/100 ml initially and 86 mg/100 ml finally. The levels in four patients decreased and in two increased.

Of the 68 patients who had abnormal CSF protein and/or gammaglobulin levels, in 18 the abnormal mental state could be linked with a physical cause—alcoholism, drug intoxication, or physical examination and other investigations revealed evidence of systemic or neurological disease. In them examination of the CSF contributed to understanding the nature of the nervous system involvement but was not diagnostic.

In three patients with encephalitis, meningioma, and hypergammaglobulinemia, discovery of a CSF protein abnormality led to the identification of a disease affecting the nervous system which was responsible for the mental symptoms.

In the remaining 47 patients abnormal CSF protein and/or gammaglobulin levels were the first and often the only direct evidence of disease of the nervous system other than the abnormal mental state which brought them into a mental hospital. Had this investigation not been performed, a label of one of the "functional" psychoses or neuroses would have been applied.

No clear relation between improvement in mental state and initial and final CSF pressures was discovered although when it did occur, it followed so soon as to suggest a pressure change or hydrodynamic effect. It was seen more often in patients with depressive syndromes and those with paranoid development or mild confusion, and most always indicated that the CSF would turn out to be abnormal. Presumably a similar mechanism underlies the improvement reported in some patients with depressive and schizophrenic illnesses after pneumoencephalography. It appears to warrant further study and clearer definition.

CSF abnormalities when present provide a measurable expression of the disease process, whatever it may be, which causes the mental symptoms. And they replace the subjective software of the psychiatric interview with the objective hardware of scientific fact. In these circumstances the abnormal mental state, however interesting, becomes the equivalent of a physical sign of disease or disordered function of the brain.

Hematologic Effects of Alcohol in Man in the Absence of Nutritional Deficiency

JOHN LINDENBAUM and CHARLES S. LIEBER

Clinical observations in man have suggested that alcohol may act as a hematologic toxin. Acutely intoxicated alcoholic patients frequently have depressed levels of circulating reticulocytes, granulocytes, or platelets. After withdrawal of alcohol, reticulocytosis, granulocytosis, or thrombocytosis may ensue. Reversible vacuolation of red-cell and white-cell bone-marrow precursors is common in alcoholism.

In these clinical situations, however, excessive ingestion of alcoholic beverages has been associated with inadequate dietary intake of nutrients, as well as intercurrent illnesses, so that it has been difficult to assess the contribution of alcohol ingestion, nutritional deficiency, or other illnesses to the hematologic picture. It has not been ascertained whether the possible hemotologic effects of ethanol are dose related, since the amount and nature of the beverages consumed before admission has usually been uncertain.

To determine what hematologic effects could be ascribed to alcohol in the absence of nutritional deficiency, we administered measured doses of ethanol under metabolic ward conditions to human volunteers while excellent intake of protein, vitamins, and minerals was maintained.

Nine adult volunteers (eight men and one woman) with a history of chronic alcoholism were studied. They had been hospitalized for several months and had been maintained on a hospital diet with vitamin supplements. Informed consent was obtained. Two subjects had had transient thrombocytopenia associated with alcoholic intoxication on admission. At the time of study all were asymptomatic, hematologically normal and in caloric balance, and had normal serum folate and vitamin B_{12} levels, with negative liver function tests and liver biopsies. Throughout each of three study periods (pre-ethanol control, ethanol, and post-ethanol control), they received daily vitamin supplements. These included (in addition to other vitamins and minerals) daily doses of 5 mg of riboflavin, 2μg of viatmin B_{12}, 30 mg of iron, 1 mg of pyridoxine, 100 mg of ascorbic acid, and 200 μg of folic acid, except for four subjects who received larger doses of folic acid. The latter took 1200 μg of pteroylglutamic acid by mouth daily; two of these four received 30 mg of folic acid parenterally during the control and ethanol periods.

Protein intake comprised 12.5 percent of total calories in five subjects, and 25 percent (or twice the recommended daily intake) in four. The pre-thanol and post-ethanol control periods varied from 10 days to more than a month.

The dose of alcohol was divided into six to 10 equal daily portions. Ethanol was substituted isocalorically for carbohydrate, and the subjects were maintained in caloric balance. The percentage of total calories con-

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tributed by alcohol was increased every two days until the maximum dose to be given to a particular subject was achieved, and that dose was maintained daily thereafter for the remainder of the ethanol period. Two patients who had received the 60 percent dose for 12 and 16 days were advanced to the 66 percent dose (for 15 and five days, respectively). The total duration of ethanol administration averaged 22 days in seven subjects and was 36 and 63 days in the other two. At the 66 percent level the total daily dose of ethanol was the equivalent of 745 ml of 86–proof whiskey.

In all subjects there were no remarkable changes in hematocrit, hemoglobin, red-cell count, mean corpuscular volume or hemoglobin concentration, white-cell count, granulocyte lobe average, or white-cell morphology in the peripheral blood. Macrocytes, burr or target cells, or hypersegmented neutrophils were not observed. In the first three subjects, the reticulocyte count rose slightly during the ethanol period and continued to rise during the post-alcohol control period; these elevations were attributed to the removal of 130 ml of venous blood weekly and did not occur in subsequent studies when venesection was limited to 90 ml per week.

Platelet counts—In five subjects (including the two who had thrombocytopenia on admission to the hospital) there was no significant change in the platelet count. In subject 9, who received alcohol as 66 percent of caloric intake for the longest time, the platelet count began to fall on the thirty-third ethanol day and reached 48 percent of baseline levels on the thirty-sixth day. Shortly after the platelet count began to fall, he had nausea and mild epigastric tenderness. Ethanol administration was discontinued on the thirty-sixth day, with rapid disappearance of symptoms and return of the platelet count to normal.

In three other subjects the platelet count began to fall after 20 to 23 days of alcohol. In each of these subjects the count reached its lowest point three to six days after ethanol administration was terminated.

Bone-marrow findings—In the eight subjects who had serial bone-marrow aspirates, marrow morphology was normoblastic during the control period and remained so on ethanol. The number of pronormoblasts containing one or more vacuoles averaged 11 percent in the pre-ethanol control period. Of the three subjects whose maximum ethanol dose comprised 46 percent of caloric intake, one showed an increase in pronormoblast vacuolation.

Marked increases in pronormoblast vacuolation developed in all four subjects who received alcohol as 60 percent of caloric intake, and in all three who received ethanol as 66 percent of caloric intake. In two subjects whose ethanol consumption was increased from 60 to 66 percent, there were concomitant rises in percent vacuolization. In one subject on 60 percent ethanol, pronormoblast vacuolation increased from 16 percent at 29 days to 53 percent at 61 days.

Four subjects with marked elevations in percent vacuolation had received 1.2 mg of oral folic acid daily throughout the study, and one of them, 85 percent of whose pronormoblasts were vacuolated on ethanol administration, had been given 30 mg of folic acid parenterally during the week before bone-marrow aspiration.

Pronormblast vacuolation was more frequently cytoplasmic than nuclear, and often found at the nuclear-cytoplasmic junction. Most cells contained two to three vacuoles.

Promyelocyte vacuolation, though occasionally striking, was less impressive; it was not encountered at the 46 percent dose level, and was inconsistently present with higher doses.

Single bone-marrow aspirates obtained five to thirteen days after cessation of alcohol administration in three subjects showed return of percent vacuolation of red-cell and white-cell precursors to control levels.

Serum iron—Adequate numbers of observations for analysis of serial changes in serum iron during each of the study periods were available in seven subjects. The mean serum iron rose slightly in six during the ethanol period, and fell significantly with alcohol withdrawal in all. The lowest level reached during the withdrawal period was below any of the baseline values from the original pre-ethanol control period in six of seven subjects. No changes in serum iron-binding capacity, bone-marrow iron stores, or narrow sideroblasts occurred. The changes in serum iron during the ethanol and post-ethanol periods occurred regardless of whether increased vacuolation of marrow cells developed on ethanol administration. The magnitude of the alternations in serum iron did not correlate with dosage of alcohol.

Ferrokinetic studies—^{59}FE was given intravenously to two subjects (on 60 and 66 percent ethanol) on the eighteenth and twenty-seventh ethanol days. One of the two had significant pronormoblast vacuolation at the time of the ferrokinetic study; both had normal hematocrits and reticulocyte counts. The initial plasma iron clearance rates were 48 and 70 minutes respectively (normal, 60 to 120 minutes). The plasma iron turnover was slightly elevated in both subjects. Red-cell radioiron utilization was normal. In vivo counts over sacrum, spleen, liver, and heart revealed a normal organ distribution of the radioactive iron.

Other studies—There were no changes in serum vitamin B_{12} or folate levels during the study. No patient became jaundiced. Liver biopsies were obtained during the ethanol period in five subjects, and varying degrees of fatty infiltration were present.

In summary, under metabolic ward conditions in which excellent protein and vitamin intakes were maintained, alcohol administration was associated with vacuolation of marrow cells, changes in serum iron, and in some subjects, a depression of the platelet count. These findings are consistent with clinical observation that thrombocytopenia and vacuolization of bone-marrow precursor cells are frequently encountered in alcoholic patients even in the absence of subnormal serum folate levels or morphologic evidence of folate deficiency.

The Compleat Forensic Psychiatrist

AMES ROBEY and WILLIAM J. BOGARD

"Forensic" as applied to the psychiatrist historically refers to the expert witness who enters the courtroom and debates the intricacies of mental illness and criminal responsibility. Although the stand provides a public forum for presentation of psychiatric concepts and principles and their application, the issue of criminal exculpability carries with it the greatest emotional response and publicity. Despite its rarity, concern over this defense has resulted in ambiguities in the definition and role of the forensic psychiatrist. Too often forensic psychiatry is thought to consist solely of testifying on the criminal responsibility of some defendant.

Evaluation Function

The evaluation of individuals referred by the courts or lawyers continues to be an important function of the forensic psychiatrist. Diagnostic evaluations may be requested by the criminal courts to assist in determining competency to stand trial, exculpability, and post-trial disposition, as well as such issues as diagnosis, prognosis, dangerousness, the admissibility of confessions, the testimonial capacity of witnesses, and even competency to face execution. The civil courts may request assistance in will contests, contracts, divorce and annulment proceedings, adoption or custody of children suits, tort actions, workmen's compensation, and many other areas.

Evaluation may take place under a variety of circumstances. In civil matters, the patient may be seen in the psychiatrist's or lawyer's office, in a room rented by the lawyer, at the patient's home, in a general hospital, or at a private or public mental hospital. Children involved in custody suits may have to be seen in a temporary home or placement. The patient charged with a crime may be seen in jail, a court clinic, a special diagnostic center, or on a security ward of the mental hospital.

The psychiatrist's evaluation is of extreme importance. It is from this alone that the psychiatrist will be allowed to testify. Should he base his evaluation on the opinions of others, his testimony may be inadmissible. Diagnostic assistance through psychological testing, electroencephalography, X-ray, and other procedures may be useful, but the diagnostic conclusions must be his own.

In a criminal case (or a civil case where ordered for the defendant), the referred individual may feel he has much to lose and will tend to be guarded. A "one-shot diagnostic" often falls short of reaching a valid opinion and may fail to hold up under cross-examination. Repeated or ongoing inpatient observation is preferable.

The best evaluation is worthless unless it is clearly communicated. This may be achieved by a written report, a pretrial conference with the attorney, an informal presentation in chambers, or, finally, from the stand. The psychiatrist may be summoned to appear in court to state his opinion

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and be subject to cross-examination. To the behavioral scientist, the demand of the court that a "black-white" decision be made on matters that are "gray" places a great deal of stress on the communication process.

The ways in which lawyers search for information through direct and cross-examination is threatening. Usually neither psychiatrist nor lawyer completely comprehends or appreciates the terminology, techniques, and objectives of the other. This creates misunderstanding, suspiciousness, and hostility. The psychiatrist is asked to deal with terms such as "insanity," which have no meaning in current thinking. He is seldom instructed as to the issue on which the court would like to have information and advice. The courts, on the other hand, have rarely had a source of information that could advise on the advances in knowledge being accumulated by the mental health professions or an interpreter for psychiatric jargon.

The need for better communication can hardly be overstated. The criminal court is interested in the protection of society, establishment of culpability, appropriate disposition of any particular person before the bar, protection of his civil rights, and with some members of the judiciary, his rehabilitation and return to the community. With the exception of, perhaps, the establishment of guilt, the psychiatrist shares the same goals. There should be no problem in cooperation and communication, but there continues to be one at the present time. The result has been that the courts have had to be content with confused and confusing psychiatric thought.

In criminal trials, expert witnesses may present conflicting testimony, which the court must reconcile. For example, in the absence of indication of psychosis, the favorite diagnosis of the psychiatrist retained by the defense is dissociative reaction; rebuttal testimony may indicate only the presence of an antisocial character disorder. Technical jargon leads to further obfuscation.

The forensic psychiatrist must learn several languages. In speaking to a lawyer, he should use "legalese;" in speaking to another psychiatrist, he may use "psychiatrese;" but when addressing the judge and jury, he should use plain English.

In the treatment of forensic patients, problems arise that are not encountered in the hospital, clinic, or private practice. If a patient is committed as incompetent to stand trial, treatment must take into consideration the fact that the patient may consider his hospitalization only as one more step in the criminal process. Not infrequently such a patient will appear to reconstitute rapidly, but when the imminence of his pending trial is discussed, he undergoes rapid decompensation. Worse, the psychiatrist may not evaluate his ability to withstand the stress of trial. Returned to the custody of the court, the patient may suffer an exacerbation of symptoms, in jail or during the trial.

He may be returned to the court on medication, with the advice that such medication is necessary to maintain his stabilized condition. There are many members of the judiciary who refuse to allow a patient into the courtroom while he is on medication. Ataractic medications are viewed in the same light as hallucinogens, narcotics, or alcohol. Few jails are equipped to administer medication on any regular basis. If the jail provides

additional stress, few facilities provide a psychiatrist who can prescribe medication or other treatment that would maintain the patient's stabilization until trial. Even during the trial itself, should the patient undergo decompensation, the availability of a psychiatrist could allow completion of the legal proceedings.

Occasionally the psychiatrist may be in a position to suggest other dispositions to the court, such as a *nolle prosequi* or a dismissal of the charges. This should usually be suggested in the absence of prior record and where there is indication that treatment can provide a good guarantee against recidivism. The defense lawyer can hardly make this suggestion since it is his role to avoid incarceration for his client, and such a move might be viewed by the court as a way to avoid the sanctions of society. The prosecutor will rarely make such a suggestion unless it is on the basis of inadequate evidence or grounds that would make a trial impossible to prosecute successfully. The judge will avoid the issue, partly because he is overworked but also because he does not feel it is within his discretion. Such a proposal by the psychiatrist is often met with a sigh of relief by attorneys and the court.

Post-Trial Function

Post-trial treatment depends upon the outcome of the case. Should the individual be acquitted but still need treatment for his mental illness, the court may, through a relative, the prosecutor, or even on its own initiative, petition the probate court for a civil commitment. Commitment following acquittal by reason of insanity, while technically civil, remains a criminal commitment in all but a few jurisdictions. Where the court retains jurisdiction over release of the patient, it will require psychiatric evaluation. The criteria for release usually include recovery from the illness of which the crime was a product, and no probability of recidivism within the bounds of reasonable medical certainty. In reference to the latter half of this test, we see a major flaw. There are no criteria on which one can predict future dangerousness or recidivism.

The psychiatrist who must make a release recommendation has a tendency to overpredict dangerousness, since this provides him (if not the patient) with protection against criticism. Should he recommend release and the patient gets into difficulty again, the patient may be exculpated on the basis of his mental illness but the psychiatrist is in no position to use the same excuse for himself. Should he explain how stresses in the patient's life caused an exacerbation of his illness and another crime, he is likely to be viewed as trying to make excuses. If the psychiatrist overpredicts dangerousness, he is recommending continued custody of the patient for an indeterminate period, and the possibility of recidivism is reduced to the same level as the possibility of escape from the institution.

The psychiatrist becomes a pseudo-warden and a coercive agent for the legal system. In this case the defendant is barred from the usual determinate sentencing and the parole consideration that would be available. He is deprived of the protections of due process and the provisions that would have been available to him under the "worse condition" of being convicted.

Treatment in prison requires modification of the treatment model in psychiatry. Here the psychiatrist finds that not only must he treat the patient, but he must spend time educating and even treating members of the correctional system. An entire program within a prison can rise or fall on the ability of the professional to "wear two hats."

The forensic psychiatrist must not only be a researcher, but he must be a teacher and a salesman. He must join the system under adverse conditions and sell his ideas from within. Nor can his concepts be theoretical. They must have practical value to all prison personnel and correlate with the behavior of inmates.

Treatment of the patient must be modified to take into consideration the attitudes of the community to which he will return. If convicted, he must face the stress of being considered an "ex-con," which is difficult for the average antisocial personality disorder. The societal response creates a strain that may produce an exacerbation of his illness and further antisocial acts. Rarely available is provision for psychiatric aftercare following release from a hospital or prison. In many States, the individual acquitted by reason of insanity is given an outright discharge. Aftercare can be provided only on a voluntary basis and is often ignored.

When the patient is released, parole clinics certainly are necessary, although few States or jurisdictions provide such follow-up. Parole officers frequently possess the same punitive attitudes seen in correctional officials and guards. Little understanding is given to the individual's emotional needs; if this were applied, it could go a long way toward preventing further difficulties. Here, the forensic psychiatrist must play a critical role not only in treatment, but in the education of others involved in the system set up by society to protect itself.

Training Function

Training is an important responsibility and should not be restricted to lectures in medical school or residency programs. Few medical or law schools provide in-court demonstrations of the judicial process at work on medicolegal problems. It is suggested that not only psychiatric residency programs but medical schools set up practical demonstrations and, where possible, opportunities actually to testify. Law schools should have practical demonstrations as well as lectures on psychiatry. The law student should see and talk with, for example, a paranoid patient. In seminars he should hear about legal problems the civil and criminal courts must face and the various legal tests for "insanity." The teaching of forensic concepts also needs to be provided in university psychology departments, social work schools, and nursing programs. Lectures should be given to bar association meetings, judicial conferences, and other similar groups.

Research Function

Research is also of prime importance. A critical issue is establishing statistically significant criteria for the evaluation of dangerousness and recidivism. Beyond this, while there are theories as to the etiology of crime, not one of them can be considered comprehensive. Crime may be considered in many situations as a behavioral response to a particular emotional pattern. As such, every crime deserves individual attention.

The forensic psychiatrist is of necessity exposed to a selected case load. Many of his patients have been through the screening processes of the courts and have been determined according to the layman's point of view, to have some type of emotional illness. There is an inherent bias and limitation in much of the research that has been done. It does not incorporate many cases with an underlying emotional etiology that goes undetected by the court, nor does it deal with the criminal who is not apprehended or brought to the attention of the law. This emphasizes the need for imaginative research in the hope that these areas can be studied to broaden knowledge in the field of forensic psychiatry.

Other Attributes

The forensic psychiatrist must be versed in all fields of psychiatry. He needs subspecialty skills in geriatric, adolescent, child, industrial, and community psychiatry. He must have some training in mental retardation, alcoholism, and addiction. He must demonstrate a knowledge of neurology and other fields of medicine. The forensic psychiatrist must have more than a nodding acquaintance with clinical, experimental, and social psychology, counseling, social work concepts, casework, group work, and community organization. He should be familiar with educational principles to fulfill his role as a teacher. He must be a competent administrator in developing and running new programs. Even more important, the forensic psychiatrist must have a practical knowledge of the law—not only in the judicial aspects of the criminal, civil, and appellate areas, but also in the legislative aspects; through legislation law and psychiatry can cooperate in forming approaches to the problems of the mentally ill participant in a legal proceeding.

The need for trained personnel cannot be overemphasized. While the research and training aspects provide incentive for competent individuals to enter the field, the spectre of the courtroom frightens many away. The lack of a clear identity and role is another deterrent. It is suggested that action be taken by the American Psychiatric Association, the American Bar Association, and the medical and law schools of the universities, with the assistance of the Federal government, to establish and support training in forensic psychiatry. It is also suggested that an American Academy of Forensic Psychiatrists be formed with the goal of obtaining Board certification. Such programs can not only serve the needs of the courts and society, but also create the *compleat* forensic psychiatrist.

Rural Case Aides in Maine

Graduates of the Maine Rural Youth Corps are making an important contribution to mental health services in the State in a new and imaginative program.

The Maine Rural Youth Corps, funded by the Office of Economic Opportunity and the Department of Labor, is the first of its kind in the country. The objective is to provide a six-month training and social work experience for about 50 young people between the ages of 17 and 22, who help teenagers in their own counties form local chapters of the Corps and after completing their six months of training go on to social welfare and manpower training jobs. Another objective is to encourage thousands of teenagers to stay in Maine by taking part in local community activities.

The mental health services are provided by Youth Corps graduates working at Bangor State Hospital. This hospital, as so many other State hospitals, has a large intake of elderly persons, many of them for short-term psychiatric care. But when the time comes that they are ready to leave the hospital, they have no place to go. The hospital staff has worked for years to find enough boarding homes, but could never meet the increasing demand. Keeping all these elderly people in the hospital was overburdening the staff and the State budget, and was causing overwhelming loss of hope and human dignity in those who "could go, but nobody wanted them." Many became ill again as they began ruminating about why no one wanted them. With the overcrowded conditions, many who needed treatment did not receive it despite best efforts of hospital staff.

These were some of the reasons for hiring the Youth Corps graduates. Other reasons were that the hospital could not afford to hire professionals for the job, and also that the Rural Youth Corps administrators were working with the Department of Mental Health and Corrections and the Counseling Center in Bangor to develop jobs for the graduates.

Seven graduates of the first session of the Rural Youth Corps were chosen to participate in a two-week training program specifically designed to prepare them for jobs in the Hospital.

Many of the professional staff expressed various degrees of pessimism about the program and the youth. This reaction was used as a learning experience for the trainees—it showed them how to work with such conflicts in relation to hospital staff and, even more important, how to deal with such conflict in their jobs in the community. Many questions were raised about whether the trainees had the skill and motivation to find homes for the old people and whether they were responsible enough to work alone in the field without daily supervision. These questions were handled directly with the young people as part of their training.

After the training sessions, the trainees, now called Social Care Supervisors, worked in offices in four different towns in northern Maine. Most of the offices were in social service agencies, which had the advantage of allowing the rural aides to seek immediately available supervision, as necessary, and also helped them coordinate their work with other agencies involved with State hospital patients.

After only three and a half months,

the rural aides had found homes for more than 40 patients. They located the homes, inspected them, and received approval for them as boarding homes. In the planning stages of the program, it was estimated that if the rural aides could find 10 boarding homes for patients, they would have paid for their salaries.

Those who have been active in developing this program are Dr. John E. Turner, a psychiatrist at the Bangor State Hospital, Dr. Francis J. Kadi, Acting Superintendent of the Hospital, Dr. Richard T. Lamping, Executive Director of the Counseling Center in Bangor, and Mr. Ray Bollerud, Social Worker at the Counseling Center, who was responsible for the training program.

Terry Children's Psychiatric Center

The Terry Children's Psychiatric Center at Fernhook, Delaware, was opened in September. The Center was named in honor of former Governor Charles L. Terry.

During the first year of operation, the maximum capacity of the Center will be nineteen children for residential care and seven to nine for day care. Children between three and twelve who reside in Delaware will be eligible, but eventually it is hoped to include adolescents. Children with all types of emotional problems but particularly those of an acute nature, both psychotic and nonpsychotic, may be accepted.

The new Center will be headed by Dr. Priscilla A. Keeler.

Community Care Placement Program in Pennsylvania

More than 2,775 patients in State mental hospitals in Pennsylvania were rehabilitated and returned to society through the Community Care Placement program during the past fiscal year.

Begun in some State institutions in the 1950s, the Community Care Placement program gained impetus in recent years. Community care placement is handled through hospital social service departments in conjunction with private or State resources. Following medical, psychiatric, and social recommendations by the clinical staff, a patient is prepared for his return to the outside world through social service workers.

If patients have been institutionalized for years, extensive conditioning is necessary to adjust them to outside environment. In addition to learning to live in home surroundings, they learn how to obtain health services, handle money, enjoy the recreational and social activities of the communities, and, overall, think for themselves.

Among placement facilities used when there is no family home to which a patient can return are county homes, nursing homes, boarding homes, halfway houses, and rooms in private homes. The program includes vocational placement and attempts are made to find appropriate work for the skilled, semi-skilled, or professional person.

Placement reports on persons in the program are submitted monthly to the Office of Mental Health. In accordance with the Mental Health Law a Community Care Placement program patient is evaluated at the end of a year in the program for the purpose of discharge. If it is determined the patient is not properly adjusting or functioning in a constructive way, he may continue in the program and be further helped by its supportive services.

Although the State has assumed responsibility for return of rehabilitated mental patients to the community, local resources, both public and private, are looked to for job-training, jobs, homes, cultural activities, and the encouragement that lends to a successful release from an institutionalized existence.

National Institute of Mental Health Communications Award

The National Institute of Mental Health has established a Communications Award to be given in recognition of "outstanding service in mental health public education."

The first award was made to Grey Advertising, Inc. for its role in the NIMH's drug abuse information campaign. Grey Advertising prepared at cost all the television and radio public service announcements and printed media materials in use by the Institute in its nationwide drug abuse education program.

Indian Psychiatric Society

Founded in 1947, the Indian Psychiatric Society has grown from a membership of fifty to over three hundred. In spite of this growth the number of psychiatrists in India is still pitifully small to care for the enormous mental health needs of a population of 500 million.

During the past ten years the Society has been working mainly in two areas. One is an attempt to get more psychiatric training in the undergraduate medical curriculum, in line with the fact that most mental health care in India must be done by the general practitioner. The second concerns a new Mental Health Act to replace the outmoded "Indian Lunacy Act." The Society submitted a draft bill to the Law Department some years ago and is now waiting for the bill to be introduced into Parliament.

The Society has recently been working on a classification of psychiatric disorders suitable for use in India. The Delhi regional branch organized a workshop, in collaboration with the Department of Psychiatry of the All-India Institute of Medical Sciences, that developed an outline of a classification which satisfied local needs and is convertible to the WHO International Classification of Diseases. The Society also publishes the quarterly, *Indian Journal of Psychiatry.*

Mental Health Associations in Australia

A new Association—the Australian National Association for Mental Health—was organized in 1968 at a meeting in Sydney. Several of the States in Australia had mental health associations, but there was no national association. The new Association will coordinate some of the activities of the State associations, arrange activities on a national basis as appropriate, and make recommendations to the Commonwealth Government on mental health issues. The Association has published a booklet, "History of Mental Health Associations in Australia," an account of the beginnings of mental health activities in New South Wales, Queensland, South Australia, and the Australian Capital Territory, and the growth of mental health work throughout Australia. Only the Northern Territories and Tasmania have yet to form mental health associations.

The Honorary Secretary of the Australian National Association for Mental Health is Dr. W. S. Matsdorf,

182 King St., Sydney, 2000, N.S.W.

News from the National Association for Mental Health

The NAMH's Board of Directors has called for priority on services for mentally ill children as related to implementation of the Report of the Joint Commission on Mental Health of Children. The NAMH position is that the levels of priority should be, first, implementation of the program of services as contained in the Report; second, appointment of a Special Assistant to the President and a Council on Mental Health, and third, the Commission's recommendation on manpower, child development, and health and educational services. The NAMH also believes that implementation of he Commission's primary recommendation—that a nationwide system of Child Advocate Bureaus be established—should be preceded by several demonstration projects.

The NAMH and the President's Committee on Employment of the Handicapped have started an "Employer of the Year Award" to honor firms that contribute to employment of mentally restored persons. Entries will be judged on the basis of employment practices regarding hiring of former mental patients, mental health practices in the firms, and the firm's participation in community mental health affairs.

Unusual and innovative uses of volunteers, indigenous personnel, and subprofessionals to help alleviate the mental health manpower shortage will be demonstrated in a forthcoming "National Manpower Showcase," tentatively scheduled for February 1970. About 35 such programs will be featured. (Adapted from the *NAMH Reporter*).

Mental Health News from Kansas

The Iroquois Mental Health Center in Greensburg, Kansas, the newest Center in Kansas, has set prevention of mental illness as its top priority. As a result, it is emphasizing "going out" to the mental health problems in the community rather than passively waiting for them to appear. Regular consultation visits are scheduled with schools, courts, county attorneys, law officials, physicians, welfare workers, ministers, public health nurses, and others in the community. Many workshops on special topics designed for special groups are held. Staff fill many speaking engagements, and most of the newspapers in the four-county area served by the Center are publishing a weekly column on mental health prepared by the Center's staff. Direct services continue to be offered, as necessary, with an average caseload of 75-100 patients.

A program of vocational rehabilitation was started at Larned State Hospital designed to prepare a patient for a job and place him in suitable work conditions. Osawatomie and Topeka State Hospitals already have such programs, and State institutions at Parsons, Norton, and Hutchinson will soon begin. Vocational rehabilitation at Larned involves three teams of workers: an admissions team, a rehabilitation team, and a placement team. About 50 percent of the patients in the program are trained at the hospital in service jobs; another 25 percent go to technical schools for formal training, and 25 percent are placed directly in jobs for which they are already prepared. After a client is placed, vocational personnel follow his program for 60–90 days, and if

both employer and client are satisfied, the case is closed.

Osawatomie State Hospital has been awarded a grant by the National Institute of Mental Health to provide patients with social and vocational skills necessary to live successfully in the community. The program is called a "patient centered system." Under this plan, patients in one section are divided into small groups, called family groups, with an aide in charge of each group. The aide's task is to integrate the members into one responsible group of people who care about and take responsibility for one another in much the same way as family members do. Plans now call for "expediters" to work with each section to develop what is most needed by small groups of 8–15 patients and by the section as a whole. (Digested from *Taproots,* A Report of Kansas Social Services).

Unit System in Texas

The unit system of State mental hospital care has been in effect in Texas for a little over a year. Under the unit system a hospital is divided into several semi-autonomous units each serving a specific geographical area. Indications are that the new system has already had an impact. "Backwards" no longer exist. Level of therapeutic activity has increased. Average length of stay of patients has been reduced. The usual isolation of a State hospital has given way to an active involvement with the community and participation in the community mental health center movement.

Psychiatric Education for General Physicians

The Mental Health Unit of the Southern Regional Education Board has begun a three-year project to improve the general physician's competence in working with the emotional problems of his patients. The project will provide assistance to psychiatrist-trainers in the content to be offered and the teaching principles to be used. Other activities will be the development of guidelines for assessing the need for such training and the most appropriate programs to meet much needs. The project will also help evaluate the training program. Emphasis will be on the social aspects of medicine as well as the psychological aspects. The address of SREB is 130 Sixth St., N.W., Atlanta, Ga. 30313.

Narcotic Withdrawal Syndrome in the Newborn Infant

An editorial in the *Oklahoma State Medical Journal* (September 1969) calls attention to the narcotic withdrawal syndrome in infants. The syndrome was a medical curiosity until about 20 years ago. But with the increasing use of drugs among women of child-bearing age, more and more babies are born "drug addicts." Cut off at birth from their drug supply received from the mother, the babies begin to show withdrawal symptoms in the first 24 hours. Unless properly treated, most of the babies die. The withdrawal treatment usually takes several weeks, and even after successful therapy there is the problem of returning the baby to an environment of possibly addicted adults.

Reducing the Supply of Narcotic Raw Materials

Illicit or uncontrolled production of opium, cannabis, and coca leaf is one of the great unsolved problems in narcotic addiction and drug abuse. Recognizing this problem, the General

Assembly of the United Nations has passed a resolution calling for aid to the countries in which such production takes place, especially to help those who are dependent on cultivation of these crops switch to other crops or other forms of economic activity. It brings out that the Governments involved—typically in underdeveloped countries—cannot fight this problem alone.

The Resolution:

Requests the Secretary-General, in cooperation with the Commission on Narcotic Drugs and the International Narcotics Control Board and in consultation with interested Governments, to develop plans for putting an end to the illegal and uncontrolled production of narcotic raw materials and to submit these plans, through the Economic and Social Council, to the General Assembly at its twenty-fifth session [in 1971];

Invites the specialized agencies, in particular the Food and Agriculture Organization of the United Nations, as well as the United Nations Conference on Trade and Development and the United Nations Industrial Development Organization to participate fully in the preparation of these plans;

Recommends that the Governments concerned develop plans to seek assistance from these agencies, from the United Nations Development Programme and from bilateral sources in their efforts to develop alternative economic programmes and activities, such as the substitution of crops as one of the most constructive means of ending the illegal or uncontrolled cultivation of narcotic raw materials.

Even though tangible results will probably not be seen for many years, the resolution is one more step in the world-wide program to combat drug abuse.

Army Program for Social Work-Psychology Specialists

The U. S. Army has a program to train specialists in social work and psychology. After training, the specialists work in military units as intermediaries in emotional crisis situations. About 200 of these specialists are discharged from the Army annually, and the Army is trying to obtain information on mental health settings that could provide employment for them. Information about the program and its graduates may be obtained from Col. Edward T. Cook, Director, Department of Neuropsychiatry, Medical Field Service School, Fort Sam Houston, Texas 78234.

Biochemistry of Mental Disorders

Biochemistry of Mental Disorders deals with the role of biochemical factors in the etiology of mental disorders and the investigation of chemical factors that characterize such diseases or that indicate their severity and clinical course. It assesses the major trends in biochemical research in psychiatry, and indicates where further basic research could most usefully be applied to the solution of important clinical psychiatric problems.

Much attention is devoted to the role of biochemical factors in the etiology of mental retardation, particularly where this is associated with inborn errors of metabolism. Further sections are devoted to the biochemical basis of affective disorders, the periodic psychoses, and schizophrenia. The biochemical mechanisms involved in the development of drug dependence, of psychoses associated with

drugs, and of psychosomatic interactions, are considered in turn.

A number of methods of clinical investigation that may be of value in biochemical research in psychiatry are indicated, and an outline is given of the current trends in basic neurochemical research. The report concludes with a number of detailed recommendations regarding areas of promising research, the exchange of information, and nutritional programs.

The report (Biochemistry of Mental Disorders: Report of a WHO Scientific Group. World Health Organization Technical Report Series, 1969, No. 427, 40 pages. Price: 6/-, $1.00, Sw.fr. 3.-. Also published in French; Russian and Spanish editions in preparation) may be obtained from the American Public Health Association, 1740 Broadway, New York, N. Y. 10019, or the World Health Organization, Distribution and Sales Unit, Geneva, Switzerland.

Conference of the World Union of Organizations for the Safeguard of Youth

A report of the Conference of the World Union of Organizations for the Safeguard of Youth, which was held in Tunis last Spring, is now available. The conference theme was "Psychosocial Resources for Families with a View to the Adjustment of Children and Youth in Rapidly Changing Societies." There were over 300 participants, with representation from 28 countries. The 170-page report is available in French and English, for $4.00, from the Secretariat, U.M.O.S.E.A., 28 Place Saint-Georges, 75, Paris 9eme, France.

Behavior Therapy—A New Journal

Behavior Therapy, a quarterly journal published under the auspices of the Association for the Advancement of Behavior Therapy, will be launched in 1970. It will be oriented primarily toward publication of original research, experimental or clinical, which contributes to the theory and practice of behavior therapy. Critical reviews will appear occasionally; the journal will also include discussions of theoretical, social, and ethical issues. Contributions may be sent to the editor, Dr. Cyril M. Franks, New Jersey Neuropsychiatric Institute, Princeton, New Jersey, 08540. Subscription information may be obtained from Academic Press, 111 Fifth Ave., New York, N. Y. 10003.

Mental Health Pocketbooks and Paperbacks

A selected briefly annotated list of 180 recently published and inexpensive, mental health pocketbooks and paperbacks appeared as a supplement to the September-October issue of *Canada's Mental Health.* Prepared by Dr. Benjamin Schlesinger of the School of Social Work at the University of Toronto, the monograph is intended for general use by mental health professionals, students, and laymen. Single complimentary copies are available in English or French from the Editor, *Canada's Mental Health,* Department of National Health and Welfare, Ottawa, Canada.

Outdoor Recreation Research

Outdoor recreation is becoming an important subject for those concerned with the quality of environment and social life. Most current research is in the area of natural resources and the management policies for conservation and preservation of these resources. Little work is being done on the psychological and social aspects of outdoor recreation. Consequently, a

conference to develop a program for outdoor recreation research was held by the National Academy of Sciences for the U. S. Department of the Interior. The 90-page report of the conference covers the social and behavioral dimensions and the economics of outdoor recreation and the operation of recreation service systems. *A program for Outdoor Recreation Research* is available for $3.00 from the Printing and Publishing Office, National Academy of Sciences, 2101 Constitution Ave., Washington, D.C. 20418.

Definition and Measurement of Mental Health

The report of a symposium sponsored by the National Center for Health Statistics, *The Definition and Measurement of Mental Health* is concerned with measurement of the prevalence of mental health in the population of the United States. No standard or well-accepted methods exist for obtaining these data; indeed there is disagreement about the concept of mental health and mental illness. The symposium was organized as an attempt to clarify the conceptual issues and the methodological approaches based on them. The report consists of the presentations made by ten distinguished behavioral scientists who have worked on these problems.

The 280-page book may be obtained from the Superintendent of Documents, U. S. Government Printing Office, for $3.00.

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recent nimh publications

Single copies of these publications may be obtained from the Office of Communications, National Institute of Mental Health, LL02, 5454 Wisconsin Avenue, Chevy Chase, Maryland 20015. A complete list of all publications available from the NIMH may also be obtained from the Office of Communications. If a price is given, the publication may be ordered in quantity from the Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402. Enclose a check or money order payable to the Superintendent of Documents.

Volunteer Services in Mental Health. This 104-page annotated bibliography is organized under the following topics: philosophy and history of volunteer services, planning and administration, institutional settings, community settings, specialized services in multiple settings, research and statistical studies, and bibliographies and directories. Prepared by Francine Sobey, Columbia University School of Social Work, under contract with the National Clearinghouse for Mental Health Information. NCMHI Publication No. 1002. $1.00.

Research in Individual Psychotherapy. This bibliography consists of research reports pertaining to individual psychotherapy with adult patients as well as general references relevant to research in psychotherapy. It cites 2741 references. Prepared by Hans H. Strupp of Vanderbilt University and Allen E. Bergin of Teachers College, Columbia University. PHS Publication No. 1944. $1.50.

Psychotropic Drugs and Dysfunctions of the Basal Ganglia. This publication contains the proceedings of a multidisciplinary workshop sponsored by the Psychopharmacology Research Branch, Division of Extramural Research Programs, National Institute of Mental Health. Edited by George E. Crane and Russell Gardner, Jr. PHS Publication No. 1938. $1.75.

Suicide Among the American Indians. The proceedings of two workshops sponsored by the National Institute of Mental Health and the Indian Health Service are contained in this 40-page publication. PHS Publication No. 1903. 50 cents.

The Comprehensive Community Mental Health Center. This annotated bibliography contains 147 references published during 1957-1968. Prepared by Carole Doughton Vacher, University of North Carolina. PHS Publication No. 1980. 30 cents.

NIMH in brief. This is a small pamphlet summarizing the objectives and programs of the National Institute of Mental Health. PHS Publication No. 1916. 10 cents.

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